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ABSTRACT

This guide contains concept based lessons and activities in economics for use with students in grades 4-6. One component of a two-part publication, the guide demonstrates how the conceptual structure of the economics discipline presented in the first publication (ED 148 648) can be used to help students at the intermediate grade level make more effective economic decisions. By selecting lessons to supplement existing courses or texts, teachers will be able to upgrade the quantity and quality of economics instruction. The concepts taught are: scarcity, costs, property and economic systems, demand and supply, competition versus monopoly, money and banking, and inflation and deflation. Part One, which comprises about half of the publication, contains 16 classroom tested lessons. Most of the activities include group interaction and discussion, involving students in simulations and role playing situations. Each lesson contains a description of concepts to be taught, a rationale, objectives, specific teaching procedures, students materials, followup activities, and evaluation questions. Part two contains three units of study involving students in organizing a company, producing a product, and selling it to demanders; analyzing and critiquing economic commentaries made by political cartoonists; and building a town in the days of the Gold Rush. The third part of the guide describes an experience-based instructional system called Systems: The Mini-Society. In this activity students create their own society and make economic decisions the consequences of which affect their lives. (Author/RM)

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Master Curriculum Guide in Economics for the Nation's Schools

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Part II

Strategies for Teaching Economics

Intermediate Level (Grades 4-6)

Marilyn Kourilsky, Chairperson

1978

Joint Council on Economic Education

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Preface

Strategies for Teaching Economics is one component of a two-part publication entitled *Master Curriculum Guide in Economics for the Nation's Schools*. Part I of the Guide, *A Framework for Teaching Economics: Basic Concepts*, presents a conceptual structure of the economics discipline and shows how that structure can be used to assist in more effective personal economic decision-making. Part II of the Guide, *Strategies for Teaching Economics*, demonstrates to educators how the conceptual *Framework* can be taught at various grade levels: Primary, Intermediate and Secondary. It has been packaged as several volumes to allow more flexible use by classroom teachers and curriculum development specialists.

The Joint Council greatly appreciates the fine cooperation given to us by the many universities and school systems associated with the development of these curriculum strategies. We are especially indebted to the individuals who drafted these materials. Meticulous field-testing by talented classroom teachers near the development sites provided the necessary shakedown to assure that each lesson published was classroom-tested. While no claim is made that these lessons have been evaluated under all classroom conditions, we do know that the lessons work with the pupil populations designated. We consider the present volume as a working document and that modified versions will be forthcoming in the years ahead.

The entire Master Curriculum Project was made possible by general contributions from all of our many dedicated sponsors. In addition, supplementary grants were received from General Motors, Ford Motor Car Fund, and American Telephone and Telegraph. We appreciate the confidence these sponsors have expressed in the economic education movement. Special commendation should be given to S. Stowell Symmes, Director of Curriculum, who has coordinated the project for the Joint Council from its inception.

We are confident that *Strategies for Teaching Economics* will serve teachers well as practical guidelines for building economics lessons into existing curricula. Properly used the *Master Curriculum Guide* can become a powerful device for accelerating economics instruction at all grade levels.

M. L. Frankel
Former President

Michael A. MacDowell
President

Foreword

The *Master Curriculum Guide* was published to be used as a tool for curriculum development—it is not a curriculum per se. It is designed as a resource document for school systems engaged in K-12 economic education curriculum development. Part I provides a framework for teaching economic ideas and Part II provides detailed classroom lessons illustrating tested ways in which these ideas can be taught at different levels of difficulty. Thus, the Master Curriculum Guide indicates what economic ideas can be taught, where they can be taught, and how they can be taught.

It was decided to slice the school years into three segments: Primary, Intermediate and Secondary, with the secondary packets oriented toward subject fields. Curriculum committees were established for these segments. Teachers must decide the appropriate grade for each lesson based upon the capacity of their students. Those teaching in "middle schools" will want to examine both the intermediate level package and the various secondary packages.

By judiciously selecting lessons from the volumes of teaching strategies, teachers can systematically upgrade the quantity and quality of economics instruction in their existing courses. Each lesson is self-contained and ready for teaching, but good teachers who have had economic education training can readily modify the activity to fit their special classroom needs. The lessons are concept-based rather than unit or theme-oriented. Once teachers have mastered the instructional activity, placement within existing courses or inclusion as supplements to text units will rapidly follow. Sample materials for classroom use (e.g., pictures, cards, games, etc.) may be reproduced at the teacher's discretion.

The curriculum strategies published in this volume have been classroom-tested. However, field-testing has not been conducted throughout the United States. For this reason, we see the present edition as a working document that will be improved based upon responses from users throughout the country. The Instructional Activity Evaluation Form found on pages vi-vii, or modified versions of it, may be used by supervisors to obtain feedback from teachers. We urge teachers to send copies of such evaluations to the Joint Council. This will enable us to obtain insights for future revisions. Furthermore, since we view these collections of concept-oriented curriculum activities as starting points, teachers are urged to submit their own activities dealing with concepts selected from the Framework. Those teachers wishing to submit activities should use a format that includes the essential elements of the format outlined on page viii. This guide was developed to encourage writers to provide immediately teachable lessons. If the Joint Council receives a sufficient number of activities that have been classroom-tested, we will be well on our way toward supplying multiple volumes of concept-oriented mini-lessons at various grade levels. In fact, we would have a growing "curriculum activities bank" which, when published, would provide teachers with a rich source of classroom-tested lessons designed to teach various components of the economics Framework.

The Master Curriculum Guide Project, like all complex undertakings, is the product of many people whose contributions must remain unacknowledged, because it is nearly impossible to assign authorship to ideas that have been shaped and reshaped as they were molded into a published document. Perhaps by briefly tracing the evolutionary character of the product, we can not only clarify its purpose but also give credit to some of the principals involved.

The Master Curriculum Guide Project is an outgrowth of the Developmental Economic Education Project (DEEP). Working documents produced for the DEEP experiment in curriculum change conducted between 1964 and 1969 included the "two little red books," as they were called in the field: one a statement of economic concepts to be taught as outlined in the *Task Force Report on Economic Education in the Schools,* and the second, some suggestions for grade placement. These materials were later fashioned into a single volume entitled *Economics in the Curriculum.* During the '60s and the early '70s, these publications were extensively used especially by those schools associated with the DEEP Cooperating Schools Program. Literally hundreds of curriculum guides and lesson plans were generated from these documents and through them thousands of teachers and students were introduced to economic education.

During the 1973 National Affiliated Economic Education Directors Meeting, many Council and Center Directors, led by the California and Oklahoma contingents, urged the Joint Council to undertake what has become known as the Master Curriculum Guide Project. It took three years for Lee Hansen's committee to develop a new *Framework for Teaching Economics*. At the same time the Framework was being prepared, curriculum task force groups chaired by the individuals whose names are affixed to these published volumes were established. Behind the scenes, the project relied heavily on a Steering Committee of professional economic educators: Peter V. Harrington, Director, Indiana Council for Economic Education, Purdue University; High G. Lovell, Professor of Economics, Portland State University; Clayton Millington, Executive Vice President, Oklahoma Council on Economic Education, Oklahoma State University; Leon M. Schur, Director, Center for Economic Education, University of Wisconsin-Milwaukee; Roman F. Warmke, Chairman, Department of Economic Education, Ohio University.

These individuals served in an advisory capacity for various project committees and significantly helped to shape the nature of the product. June V. Gilliard, Curriculum Specialist for the Joint Council, contributed importantly to the design of the teaching strategies and prepared the Instructional Activity Evaluation Form. Each committee was given the responsibility to make a first selection of those economic concepts which could be most usefully taught within the grade level division established. We know that more ideas than are included in these volumes *can* be taught. Our objective for these first editions was to produce a few quality activities that could be immediately used by teachers. The lessons have been classroom-tested at the development sites and we look forward to having them field-tested in classrooms throughout the nation.

We are indebted to all individuals who have participated in the preparation of *Strategies for Teaching Economics: Intermediate Level*, but special thanks are due to the Chairperson, Marilyn Kourilsky. Through her leadership, the committee has provided us with superb models that will serve to accelerate concept learning in economics.

S. Stowell Symmes
Director of Curriculum and
Coordinator, Master Curriculum Project

MASTER CURRICULUM

Instructional Activity Evaluation Form

Please complete an evaluation form for each activity used and return to: ____________
(Name of Supervisor)

NAME: ____________ (Person Completing Form)
DATE: ____________

SCHOOL ADDRESS: ____________
____
____

TITLE AND/OR LEVEL OF ACTIVITY PACKAGE: ____________

NUMBER AND/OR TITLE OF ACTIVITY: ____________

DESCRIPTION OF CLASS WITH WHICH ACTIVITY WAS USED:

Course Title: ____________
Age Range or Grade Level: ____________
Title of Textbook (if any): ____________
Student Ability Level(s) - (Check one):
____ Above Average
____ Average
____ Below Average
____ Heterogeneous Group including All the Above

ACTIVITY EFFECTIVENESS (Circle the number you think indicates the appropriate rating):

1. Are objectives clearly stated?

   Very Clear 5 4 3 2 1 Vague

2. Are objectives realistic in terms of student maturity at the specified age or grade level?

   Very Realistic 5 4 3 2 1 Unrealistic

3. Are teaching procedures stated in a manner so as to be easily understood?

   Easy to Understand 5 4 3 2 1 Very Difficult to Understand

4. Are teaching procedures appropriate for accomplishing objectives?

   Very Appropriate 5 4 3 2 1 Not Appropriate

5. Are teaching procedures appropriate for students of this age or grade level?

   Very Appropriate 5 4 3 2 1 Not Appropriate

6. Are recommended student materials appropriate for the age or grade level specified?

   Very Appropriate 5 4 3 2 1 Not Appropriate

7. To what extent does this activity contribute to pupils' understanding of the particular economic concept it is designed to teach?

Very Much	5	4	3	2	1	Not At All

8. Did you use any of the items suggested for evaluation? ____________________
If yes, please provide the information requested below.

Number of Evaluation Item	*Average Level of Class Performance (Circle one)*			
____________________	Excellent	Good	Acceptable	Poor
____________________	Excellent	Good	Acceptable	Poor
____________________	Excellent	Good	Acceptable	Poor
____________________	Excellent	Good	Acceptable	Poor
____________________	Excellent	Good	Acceptable	Poor

9. What would be your overall rating of evaluation techniques suggested for this activity?

Excellent	5	4	3	2	1	Poor

10. What would be your overall rating of the activity in terms of its effectiveness for achieving stated objectives?

Very Effective	5	4	3	2	1	Not At All Effective

COMMENTS AND RECOMMENDATIONS: What changes and/or additions would you recommend for making this a more effective instructional activity? Please describe or, if available, include some samples of any additional teacher or student materials you might have used (for example: evaluation techniques). We shall welcome specific elaboration relative to any of the above questions.

(Attach extra sheets with comments and materials or use back of form)

Form prepared by June V. Gilliard, Curriculum Specialist, JCEE.

MASTER CURRICULUM
Instructional Activity Format

CONCEPT:	State the concept that serves as the main organizer for the activity.
RECOMMENDED USE:	State grade and/or ability level of students for whom the activity is intended.
TIME REQUIRED:	State number of class periods needed to complete the activity.
MATERIALS REQUIRED:	List all materials needed for the activity (e.g., books, games, films, etc.)
RATIONALE:	A brief statement explaining the significance of the activity. The statement may focus on what students should know, be aware of or be able to do. Or, it may focus on the importance of the instructional approach being used (e.g., use of gaming/simulation for motivational purposes or for purposes of having students apply certain skills, knowledge, etc.).
RELATED CONCEPTS:	Other economic concepts specifically dealt with in the activity.
INSTRUCTIONAL OBJECTIVES:	Each objective should specify (1) the particular learning (knowledge, skill or attitude) the student is expected to demonstrate; (2) the action the student will perform in demonstrating this knowledge, skill or attitude (e.g., write, compare, state, list, etc.); (3) the conditions under which the action is to occur (e.g., given certain data or information, after viewing a particular film, given a particular field-trip experience, etc.).
TEACHER STRATEGY/ PUPIL ACTIVITY:	Description of the teaching-learning process to be used for pupil attainment of objectives.
EVALUATION:	Description of strategies, testing instruments, or other materials to be used for assessing student learning.

Prepared by June V. Gilliard
Joint Council on Economic Education

Introduction and Acknowledgments

The following pages consist of (1) an overview and rationale for the economic concepts to be taught in the intermediate grades, (2) sample lessons, (3) sample units, and (4) segments from an instructional system. Each *lesson* is designed either to introduce, to amplify, or to reinforce a specific concept chosen for the intermediate grade level. The sample *units* combine several or all of the concepts and are aimed mostly at introducing and amplifying designated concepts. The *instructional system,* the Mini-Society, encompasses all those concepts specified by the Master Curriculum's goal committee for intermediate grade levels; issues of value clarification are addressed.

The general format for the lessons and units is:

I. Description of concepts and rationale
II. Objectives
III. Directions and instructional sequence
    Room arrangement and materials
    Sequence of activities and procedures
    Follow-up activities
IV. Evaluation

The sample lessons and units were prepared and/or tested by the subcommittee on intermediate grades consisting of: Dr. Marilyn Kourilsky, Ellen Goldman, Garry Schulman, Lucy Lockhart-Mummery, Darlene Wilson, Michaele Scholes, Russell Miller, Kathleen Hirst, and Dr. Joe McClintic and students. Preliminary drafts were reviewed by members of the faculty at the University of California at Los Angeles. Barbara Schick, University of Nevada, Las Vegas, prepared the annotated bibliography of supplementary materials.

The Mini-Society was previously created by Marilyn Kourilsky. With permission, segments are included in this curricular guide.

Marilyn Kourilsky, *Chairperson*
Intermediate Level Curriculum Committee
Master Curriculum Project

10

Table of Contents

Overview and Rationale 1

I. LESSONS
- Scarcity--An Introduction 7
- A Scarcity Simulation 9
- Every Decision Involves a Cost 12
- Opportunity Cost Learning Center 14
- Let's Make Bread: A Simulation Activity on the Economic Problems of What, How, and For Whom to Produce 20
- Property (Collective Versus Private Ownership) 25
- Supply and Demand: An Introductory Lesson 27
- Carnival Games: Economic Activities on Supply and Demand 38
- Supply and Demand—Price Ceilings and Price Floors 43
- A Way of Amplifying the Concepts of a Planned Versus a Market Economy 45
- Barter, Money Exchange, and Money 49
- A Way of Amplifying the Concept of Money 52
- Out of Thin Air: An Economic Simulation Activity on Money and Banking . 54
- A Way of Amplifying the Concept of Inflation 59
- Competing Soft-Drink Stands: An Economic Activity Illustrating Competition and Monopoly 61
- Competition and Monopoly Baseball 68

II. UNITS
- The Cool Card Company 72
  - Reinforcing Economic Concepts Through Cartoons 80
- Building a Town in the Days of the Gold Rush: An Economic Simulation Activity 97

III. SYSTEMS: THE MINI-SOCIETY
- Introduction to the Mini-Society 109
- Dilemma 1: We Thought We Could Become Rich Quick (Money and Inflation) 113
- Dilemma 2: We Only Accept Quibblings in Poohville (Money) 114
- Dilemma 6: How Do I Know Anybody Will Buy My Product? (Market Survey, Demand, Risk-Taking, Entrepreneurship) 115
- Dilemma 7: Shortages—Shortages—Shortages or Who Gets the Piano Lessons? (The Rationing Function of Price and Economic Shortages) 117
- Dilemma 10: Should I Hire My Buddy? (Price/Productivity and Comparative Advantage) 119

Suggested Supplementary Materials 121

Overview and Rationale

Introduction

Almost everyone makes economic decisions. Even a child of eight, deciding whether to go to the movies with friends or to play baseball, is deciding how to use a scarce resource (time) and could be applying economic concepts such as opportunity cost to this decision. In ten years this same child will be making economic decisions in the marketplace and will be required to make decisions with significant economic consequences in the voting booth. These adult decisions affect not only the individual but, taken in the aggregate, affect us all. If individuals are to make decisions which are intelligent, informed, and based on logical analysis, the time to begin teaching them economic concepts and economic analysis is at the beginning of the formal education process.

In the primary grades, economic analysis is limited by the level of psychological development attained by students. They generally think only in terms of themselves and their families. Economic concepts and generalizations can be applied at those grade levels to the individual child and family in a highly personalized manner. As the child enters the intermediate grades his/her psychological development enables him/her to abstract further and analyze at another level. The student is still concerned with personal decision-making, but now s(he) can also view how individual decision-making can affect the society at large. In the intermediate grades we begin to deal with economic problems as problems faced by the whole group or country. The student can continue to apply economic concepts to individual decision-making, but now can also begin the type of analysis we hope will be utilized later as a voting citizen. The emphasis here is on the *interrelationship* of concepts and generalizations.

In the intermediate grades, students can begin to distinguish between the normative and the positive; that is, between what "should be" and what "is." They can begin to discuss values they hold themselves and that we exhibit as a nation (normative) in contrast to the effects of the alternative actions based on these values (positive). They can learn that, in economics, we analyze what will happen if, for example, we cut down on welfare programs rather than whether this "should" happen. The "positive" economic approach then helps them to weigh the consequences of their own and the nation's actions.

The concepts chosen for emphasis at the intermediate grades are: Scarcity, Opportunity Costs, Property and Economic Systems, Demand and Supply, Competition versus Monopoly, Money and Banking, and Inflation and Deflation. The depth to which each concept is covered is determined by the degree to which (1) the concept is relevant to personal decision-making skills, and (2) the concept affects real-world analysis performed by the economically literate citizen who is not a professional economist. Following are overviews of each concept set, including basic understandings and examples of their application to individual decision-making and to the analysis of societal problems.

Scarcity

Scarcity—limited resources versus relatively unlimited wants (uses) for the resources—is the central economic problem which requires that we all make choices, both as individuals and as societies. While in the primary grades students can learn that they must decide how to use their recess time (whether to play jump rope or to play ball), in the intermediate grades they can be introduced to scarcity as society's problem. They can, for example, discuss the alternative uses to which the education fund money from the PTA can be put. They can also learn about the alternative uses for the steel that is produced by various companies. Steel could be used for the production of cars or for the production of buildings but the same steel cannot be used for both. Furthermore, students can explore their own career decisions. Will they use their time to become teachers or dentists? They can speculate on how their decisions (in the aggregate) will affect the society at large.

It is most important in the review of this concept and its further application that students understand:

1. Scarcity is universal. It is a problem faced by all individuals and by all societies. The relative wealth of an individual or society does not "cure" scarcity. Even the "richest" person in the world has only 24 hours each day to use and must allocate the hours among alternative uses.
2. Scarcity cannot be eliminated by selflessness or altruism. Wanting only for others and not for oneself does not remove the fact that wants still exist in the aggregate and that they are constantly growing. For example, individual wants for food may not increase but the aggregate wants for food increase as population grows.
3. Scarcity necessitates choice-making for the individual and for society. We must make choices among alternative uses for resources. A plot of land can be used to build a school or a factory, but not both at the same time.

Opportunity Cost

With an awareness of scarcity as it necessitates choice-making, students can deal with the implication of choice-making—that for every decision made, some alternative was foregone. There is a cost to bear for every use of a resource. This cost is the *real* or *opportunity cost*, and is stated in terms of the next most attractive alternative use of the resource; that is, the use that was foregone. Again, students may discuss this in terms of themselves and society. A student who chooses to use his/her adult time to work as a school teacher may be giving up a career as a doctor. Society can purchase his/her skills as a teacher but society is forfeiting the skills the person may have exhibited as a doctor. And again, if society chooses to use a plot of land to build a factory, it forfeits the use of the land to build a school.

It is important to emphasize at the intermediate grade levels that *opportunity cost* (real cost) is the next best alternative foregone rather than the sum of all alternatives foregone. If a boy purchases a chocolate bar with 15¢, his *opportunity cost* is not the peanut crunch bar he could have bought for the same 15¢ *and* the pack of gum he could have purchased. The *real cost* is either the gum *or* the other candy bar.

An understanding of scarcity, the need for choice-making and the accompanying opportunity costs lead us to the exploration of economic systems—the manner in which societies deal with the facts of scarcity and real costs.

Economic Systems

Because resources are scarce and choices must be made as to alternative uses for resources, societies develop economic systems to answer three basic economic questions: *What* to produce, *How* to produce it and *Who* will get the output (*For Whom* to produce). The manner in which these questions are answered (the form of the economic system) is determined largely by the society's basic value premise as to who owns the productive resources. In the two extreme types of systems, resources are either solely the property of individuals or all resources are owned in common. In the real world, while economies tend more toward one type than another, the "pure" form at either end of the spectrum is never actually realized.

We attempt to avoid emotionally loaded terms to describe types of economies. Instead of using the term socialistic, we substitute command economy, fiat, or collective economy. Rather than use the term capitalism, we use market economy or price system.

When a group operates on the belief that resources should be owned by individuals, these individuals are apt to use the resources to their own benefit, initially producing the things they themselves want. Eventually, as the society grows, these individuals will benefit themselves most by producing what others want and are willing to pay for. They will specialize. The resultant system, with prices of goods and services directing goods and services into and out of various uses, will be a market mechanism. *What* to produce is decided by the consumers, who indicate what they are willing to pay for by casting dollar votes.

The *For Whom* is determined by the amount and productivity of the resources owned by individuals. When firms produce what is demanded from them by consumers, they must secure and hire resources. In so doing they pay out money incomes to the owners of the resources they buy or hire. It is this money that accrues to the individual as income and that, in turn, constitutes the source of his or her ability to go out in to the marketplace and vote for (buy) what he or she wants.

When a group operates on the premise that resources should be owned in common, the logical next step is that resources should be used to benefit the group as a whole. In a group of any size, this eventually necessitates a planner or group of planners to speak for the group in deciding what should be produced and who should get the output.

The decision *How* to produce in a market economy is almost always determined by the relative prices of the various inputs as compared with their productivity. In a command economy, such decisions tend to be determined by fiat.

In the intermediate grades, the social studies curriculum is such that the emphasis is put on our own country and therefore on our economy and its workings. Students at this level can be exposed to an elementary circular flow diagram depicting the workings of a market system or modified market system, including the roles of consumers (households), producers and government. This can be discussed and role-played in the classroom, using examples from the community or nation. It can first be personalized and then be abstracted to others. For example, the children can role-play the effects of a classmate deciding to put on a dance show. Those hired would include proficient dancers, perhaps someone who plays the piano, and possibly someone to write programs or to decorate—as well as other resources such as the auditorium (payment could be to the principal or the School Board). The individuals thus hired would have dollars to spend (so would the entrepreneurial classmate who used his/her management skill to combine the resources) and could discuss for *What* they are willing to cast their dollar votes. The *How* decision can also be discussed here. Will someone be hired to write out programs by hand, or will someone with access to a copying machine be hired? If someone is hired to write programs by hand, how will the entrepreneur decide whom to hire since some people write faster than others. (The quality of the work can also be considered.)

From this personalization of the circular flow of income, students can then discuss what happens if producers produce something for which consumers (1) are willing to cast dollar votes, such as frisbees or hulahoops, and (2) are not willing to cast dollar votes, such as an unpopular record. (See Demand and Supply.)

The important concepts to emphasize in this interrelationship are:

1. Consumer freedom—the freedom to buy whatever is available.
2. Consumer sovereignty—the ability of the consumers to determine what is produced (or continues to be produced) by the way in which they cast dollar votes in the marketplace.
3. Modifications—the possibility that citizens, through selection of candidates at the voting polls, can in essence vote to modify the system. The *What, How* and *For Whom* can be modified through governmental intervention.

To deal with economies other than our own, students can participate in simulations of other ways in which these decisions could have been made. An example of this would be to simulate some of the country's early colonized settlements which were based on collective ownership of resources instead of on private ownership. It is impractical, given the current curriculum, to study other nations in depth at this stage; however, after such a simulation students can discuss the trade-offs inherent in different systems of ownership. A system tending toward a market mechanism allows greater aggregate freedom to determine *What* is produced, and a system tending toward command economy may allow greater security that an individual will be part of the *For Whom* group.

Demand and Supply

An understanding of some of the principles of demand, of supply, and of the interaction between these concepts allows students in the intermediate grades to analyze a market mechanism with more penetration than is possible with the simpler circular flow diagram. Again, the concepts can be initially personalized and then abstracted to include the larger society. At the intermediate grades students are ready to utilize such tools as demand and supply schedules and graphs depicting the information from these schedules.

Demand

It has already been ascertained that we all have wants; but wants and demands differ in that demand refers to *desire* backed by the *ability* or willingness to pay for the good or service desired. Demand is a future concept and an attempt to systematize the way consumers believe they will act, not to depict the way they acted in the past.

Demand strength is influenced by several factors: (1) the tastes and preferences of consumers, (2) the income level of consumers, (3) the prices of substitutes and complements, and (4) the view of the future held by consumers.

The demand for a product refers to the willingness to purchase various quantities of a good (or service) at various prices in a stated period of time, not just to the quantity which consumers will purchase at one particular price. It refers to an entire schedule or curve. In general, at higher prices the quantity demanded will tend to be lower than at lower prices.

At the intermediate grade levels, students can create a demand schedule (and later graph it) representing their own class's demand for milk at lunchtime for the next day. They can discuss how the factors named above influence the strength of demand: (1) Tastes and preferences—some children may like milk more than others or may be more influenced by the health factors emphasized by parents. (2) Income level—students may receive differing amounts of money for lunch or as allowance, and this may influence their willingness to spend money on milk. (3) Prices of complements and substitutes—the prices of other food items sold at lunch, indeed of any other items to which the students have purchasing access, may influence strength of demand. If cookies are "cheap," students may tend to buy more milk to complement or go along with the cookies. On the other hand, cookies (or orange juice or candy or movie tickets) may be seen as a substitute for milk, children being willing to purchase less milk at varying prices, preferring to use their money to purchase cookies instead. (4) View of the future—if students believe they will soon receive an increase in their allowances or that the price of milk (or of a substitute or complement) will soon change, this may influence strength of demand.

From this personalization, students can expand their discussion, for example, to the strength of demand for various goods in a western town whose formation they are simulating or to the current national demand for automobiles. A discussion on automobiles could include questions such as: "At current prices are bicycles a substitute for cars?" "At current prices does a concern with air pollution change people's preferences concerning automobiles?"

Supply

Supply refers to the willingness of producers to produce and sell varying quantities of their good or service at various prices. As the price of the item goes up, the quantity supplied of the good or service tends to go up; and as the price goes down, the quantity supplied of the product tends to go down. Supply is determined by the costs involved in production. The two basic types of costs which are considered by producers in deciding how much they will supply at various prices are (1) out-of-pocket costs or money which is spent in hiring the factors of production (land, labor, capital and management), and (2) opportunity cost, or the alternative foregone if their time and money are to be used in this particular production. A complete understanding of supply would necessitate extensive study of the determinants of costs—a study of the "factor market"—and is not necessary at this grade level for understanding the basic market mechanism.

Like demand, supply is a future concept and refers to an entire schedule rather than to the quantity producers are willing to supply at just one price. The supply schedule, like the demand schedule, depicts the quantity producers are willing to supply *in a given time period* at various prices. Students can create a supply schedule concerning a highly personalized topic and proceed to graph it and internalize the implications before they attempt to apply the concept to the real world. For example, your class can form partnerships (to cut down on time) and create a supply schedule (after a few minutes' discussion) for car washes, answering the question, "How many cars are you willing to wash for x¢ (substitute various prices) next Saturday from 8 a.m. to 5 p.m.?" The students can then discuss what types of information and considerations went into their decisions. (Expect answers, or elicit ones such as "The two of us couldn't wash that many by ourselves, but we could hire someone to help us, for that price per car.") Students will probably indicate that they considered the cost of space ("How much will the gas station charge you to rent their 'empty' lot next door?"), water, soap, brushes or chamoises, advertising, and hired help. They should also consider payment for their own labor (and profit for the management) in terms of their opportunity costs. ("How much money could you earn in the same period by mowing lawns in the neighborhood?" and/or "Is it worth that much money to you to give up going to the park to play?") Students then can extend these considerations to analogous ones examined by, for example, U.S. producers of automobiles or gasoline.

Equilibrium

It may seem to the students that a sort of war is in progress between suppliers and consumers and, in a sense, there is. Suppliers tend to be willing to sell more at higher prices (and less at lower prices) while consumers tend to be willing to buy more at lower prices and less at higher prices. This conflict is resolved at the equilibrium price or market price: *that price at which the quantity consumers want to buy is equal to the quantity the suppliers are willing to supply.* Students can consider what would happen, for example, if their car wash became a reality. What would happen if they were willing to wash 20 cars on Saturday for $1.00 per car, but consumers in the neighborhood wanted to have 30 cars washed on that day for that price? Some consumers would be unsatisfied if the car wash closed down after the twentieth car. If the car washers had known the situation beforehand, they probably would have raised the price per car (perhaps to $1.25 per car to wash 25 cars) so that the number of car washes demanded at that price was equal to the number they were willing to wash. On the other hand, if they had been willing to wash 35 cars for $2.00 per car but at that price only 15 car washes were demanded, they may well have lowered their price. (To get a more realistic approach here, students might survey the teachers in their school and/or their parents to create a demand schedule and curve for the car washes, enabling them to work from real figures.) An important understanding here is that equilibrium is not a magic number, arrived at by some incantation. In the real world, prices are set by suppliers to approximate what they think the current market price will be; and, if the market is left to itself, the prices fluctuate, seeking (in a slightly more complex manner than described above) the price at which there are no unsatisfied buyers (no one leaves having been willing to purchase more at that price and unable to buy more) and no unsatisfied sellers (suppliers do not have surpluses nor do they run out of a good they are willing to sell at the market price before all demand is satisfied). This ideal situation is seldom completely attained.

Interferences with the Market Mechanism

In the real world the market is not always left to itself to allow equilibrium price to become established. For various reasons the government sometimes interferes with this mechanism by setting legal minimum or maximum prices on some goods and services. These two types of interferences are called *price floors* and *price ceilings*. It is important at this grade level for students to understand the results of prices set legally either above or below the market price and to attempt to analyze the difficulties caused by such price setting rather than to judge the motives of legal attempts to "repeal the law of supply and demand."

Price ceilings. A legal maximum price for some good or service which is set below the market price is referred to as a price ceiling. A price ceiling makes it illegal either to buy or sell the commodity at a price greater than the one set. Students who have had practice graphing supply and demand curves can see from a sample set of curves that, at the price ceiling which might be set on any commodity, the quantity demanded of the commodity and the quantity supplied at the same price are not the same. The quantity demanded is greater to some extent than the quantity supplied at that price. The resultant "gap" is called a *shortage*. Some demanders would go unsatisfied. A new problem then exists: Who will get the quantity supplied? On what basis will the commodity be rationed?

For example, what if the market price of milk is $1.50 per gallon but, wanting to insure that poor children could afford to buy milk, the government placed a price ceiling of $.75 a gallon on milk? Students already know that at lower prices customers tend to demand more. (People might drink more milk themselves, serve it to friends more often, feed the cats in the neighborhood or eat more ice cream and cheese.) Since consumers would be figuratively standing in line to buy milk, how would the sellers decide who was to get the milk for sale at the new $.75 per gallon price?

a. First come, first served—Whoever got to the store to buy the milk first could buy as much as he wanted. Anyone who was late could go without. (What about people who go to work?)
b. Rationing on some other basis—For example, each person could only buy one gallon of milk each week. (What about larger families?)
c. The seller and buyers could go outside the law—That is, the written records might show that $.75 per gallon was paid but the seller might sell to those who were willing to pay him an extra $1.00 per gallon "under the table." (Does this make people criminals?)

Students can discuss these possibilities in terms of the added problems caused and also in terms of accomplishment of the original goal—do the poor children really get the milk?

Price floors. Price floors are legal minimum prices set above the equilibrium price. They create a situation which, in a sense, is opposite to the price ceiling situation. Again, through a sample set of curves students can see that with a price floor the quantity demanded of the commodity is less to some degree than the quantity supplied at that price. One of the most prevalent examples of price floors which can be discussed at this grade level is that of minimum wage laws. If a minimum wage were set, for example, on babysitting at $1.50 per hour in a community where the going rate was $.75 per hour a surplus would exist since the quantity of hours to be supplied at this price would out-run the quantity demanded. This might be wonderful for those who could then sell their services for $1.50 per hour, but what about those who were not hired? Students can discuss analogous situations such as government policies toward farm products. When price floors are imposed to "help" the farmers (purportedly to increase their profit) what can be done if there were a surplus? An important point to discuss in relation to price controls is whether they really help those for whose benefit they were intended.

Changes in Demand and Supply

A change in demand (the creation of a whole new demand curve) occurs when people generally are willing to buy more (or less) of a commodity *at all prices* than they were previously, due to a change in: tastes and preferences; income levels; prices of complements and substitutes; and/or view of the future. New discoveries (real or alleged) about a product can change people's taste concerning that product. For example, if scientists discover that the use of a certain product probably causes cancer, people might be willing to buy less of the product at all prices. If students come to believe that using a certain type of pen will improve the quality of their school work, they will probably be willing to buy more of the product at all prices than previously. Advertising enters as a consideration here. Advertising is an attempt on the part of producers to inform or change the tastes and preferences of the buying public. Changes in income levels and their effect on demand will be dealt with under inflation and deflation. Changes in the prices of complementary or substitute goods affect demand because of the relationship between the products in the minds of the public. Students can discuss what would happen, given a rise in the price of baseballs, to the demand for baseball gloves or bats. It would tend to go down if these goods are seen as complements. What would happen to the demand for bicycles if there were a very great rise in the price of motorcycles (or of a complement to motorcycles such as gas)? If people began to define bikes as substitutes for motorcycles, the demand for bikes would increase.

A change in supply occurs when there is a change in the cost of production or in the opportunity cost for producing one commodity over another. Students studying U.S. history can discuss, for example, the effect of the invention of the sewing machine on the cost of factory production of clothes.

Competition versus Monopoly

In the intermediate grades, monopoly and competition should be dealt with in terms of monopolistic versus competitive practices. It is not necessary at this level to deal with degrees of economic competition or concepts such as oligopoly. The appropriate major points of discussion at this level are the amount of control over price levels held by a supplier in monopolistic versus competitive situations, the benefits to consumers of competing firms, and the types of tactics followed by some firms to attempt to gain a greater degree of monopoly power.

The existence of monopoly (one seller of a commodity) is often confused with absolute power on the part of the seller over prices for that commodity. For example, if there were only one seller of gasoline in the U.S., many people believe that that seller would be able to "charge any amount he wanted" for gas. However, at some price, people would simply buy less gasoline than the supplier was willing to sell. The control of the monopolist is not absolute for at some price people would even stop buying entirely. When many sellers of a commodity exist, they compete with each other for sales, commonly by charging less than competitors (but also by nonprice competition such as advertising, bonuses, pleasant surroundings in which to shop, etc.). It should be emphasized that any seller has *some* restrictive power if she or he can affect the price of a commodity.

In order to be able to have more power (and to charge higher prices) some suppliers use collusion (getting together to agree on setting higher prices) and predatory tactics to keep new sellers of their commodity out of the market. Licensing laws and other attempts to limit the entry of new sellers into the market may be rationalized or justified in the name of quality control, but in essence they serve to increase the monopoly power of those sellers already in the market. When freedom of entry of sellers into the market exists, prices to the consumer tend to be lower due to the price competition among the sellers of the commodity. Current antitrust laws whose effectiveness depends on prosecution by the Justice Department are an attempt on the part of government to limit the collusion efforts of monopolists and to ensure greater freedom of entry into the markets. Students can observe the effect of competition versus monopoly by allowing one student to set up a punch stand after school. A few days later they can allow other students also to set up punch stands and observe what happens to the price and quality of the punch. Relate their experience to real-world examples of the effect on price of allowing freedom of entry—e.g., in the case of ballpoint pens.

Money and Banking

Money

Money is anything which is commonly accepted in exchange for goods and services within a given society. The important understanding to convey about money in the intermediate grades is that it is not valuable simply because someone has decreed that it will be money or because of the backing of the money supply of a country. (The legal definition of money and the functional definition of money in a society can theoretically differ.) Students should realize that the reason the man who owns the corner store will accept dollar bills in exchange for what he is selling is that he has faith that he can take the dollars and satisfy his own wants with them. He believes that other producers will accept the dollars in exchange for the goods and services he wants. His faith in the dollars may be increased because the government says that they are money or because he knows that gold and silver "back" the money, but the determining factor is the faith itself and not the source of that faith. Children in the intermediate grades studying U.S. history can discuss other items such as shells and blankets, which have historically served as money for some native American tribes.

Students can also simulate and/or discuss the advantages of a money economy over a barter economy. Among these are that money saves time in looking for an acceptable trade, and that time is a resource which could then be used in production. Because time and effort are saved in having a common unit of exchange (money), people can specialize—produce many of one item rather than some of the many items each one wants.

Students can discuss briefly the types of money transactions used in the U.S. (cash and checking accounts) and can learn that money is not only a medium of exchange but also a common unit of value. They can briefly discuss a question such as "Are credit cards money?" (Credit cards allow for payments to be put off or deferred with the payment being specified as a set amount of money due.)

Important understandings about money are that a money economy as opposed to a barter economy (1) saves resources (mostly time) which can be put to productive uses, and (2) facilitates specialization; therefore greater output results. Students should also understand that the effectiveness of a money system is based on the faith of the consumers and producers in the acceptability of the money.

It is not appropriate to introduce at this level the complexities of international trade and its relationship to money systems, the buying and selling of money on the international market, etc. Similarly, the historical accident of gold backing for money should be left to the secondary level. However, one might give the students some basic idea regarding money policies. Such policies should be related to the circular flow diagram further to emphasize inflationary and deflationary processes.

Banking

The idea of banks and savings and loan institutions should be introduced at the intermediate grade levels; the importance of these institutions to the growth and operation of market-type systems should be discussed. An easy point to overlook is that some children believe that banks are government owned. Children can discuss the profit-making functions of banks as private businesses; they can participate in banking simulations as well as visit a bank or invite a banker to explain how the bank operates as a private business. The temptation here is often to teach about banks and banking solely in terms of learning to write deposit slips and checks; however, enhancing economic understanding necessitates that the children also learn about the broader functions of banks. Students can discuss the importance of banks and lending institutions to the continued functioning and growth of a community or nation, attempting to answer questions such as "How would an individual go about starting a business if there were no lending institutions?" "Do you think as many businesses would be started?" It may also be desirable at this level to provide for the more gifted students an explanation of the rudiments of a central banking system. A very simplified simulation can accomplish this goal.

Inflation and Deflation

The attitudes of public officials toward the control of inflation or deflation through fiscal and monetary policy affect every citizen to some degree. For this reason it is desirable that intermediate grade students, as current consumers and future voters, begin to explore these important concepts.

By the intermediate grades students are able to distinguish between the cause of a phenomenon and its effects. Inflation is caused by an increase in the money multiplied by its velocity, while the quantity of goods and services available remains constant or rises less. A symptom of this situation expressed in every day parlance is "more dollars chasing fewer goods." The result of inflation is a rise in the average price of all produced goods and services. Deflation is simply the reverse situation. Inflation and deflation can be illustrated to the students by using the circular flow diagram to trace the spiraling effect of an increase or decrease of spending by the government. Note that the people are the government's major source of funds. For everything it provides, the government must first tax, borrow or otherwise obtain funding from the income or property of people. When the government spends more than it receives, the resulting deficit is a major cause of inflation.

Using personal experiences or those of their parents, students can discuss recent price level changes relative to their effect on the consumer. Through these experiences and/or role-playing and simulation, students can begin to understand that personal spending taken in the aggregate affects the spiral of prices (either up or down). While an in-depth understanding of the complex mechanisms of fiscal and monetary policy should be left to the secondary level, students in the intermediate elementary grades can be introduced to some basic definitions of monetary and fiscal policy.

Fiscal policy essentially refers to the use of the federal government's taxing, borrowing and spending powers in the hope of counteracting recessions and inflations whereas *monetary policy* refers essentially to the money supply as influenced by the Board of Governors of the Federal Reserve over the lending ability of commercial banks—e.g., through control over their reserve requirements, the discount rate, and open market sales and purchases.

I. Lessons

Scarcity--An Introduction

I. Description of Concepts and Rationale

Definitions

1. Scarcity—unlimited wants versus limited resources.
2. Wants—what an individual would like to have.
3. Resources—anything that is useful and can satisfy a want.

Rationale

The purpose of the lesson is to learn the central economic concept of scarcity. Scarcity (unlimited wants versus limited resources) is a dilemma which arises in everyone's daily life regardless of the political situation or geographical location. Since children have to cope with scarcity situations in the home, school and community settings, it is imperative that they learn to identify the problem and resolve it through a rational decision-making process. A scarce resource can be time, money, raw materials, goods, services, or any item of which there is not enough to satisfy a particular want.

Through active participation in a scarcity situation, the children will directly experience the problem of unlimited wants versus limited resources. As a result of the experience, the children will have to make a decision on the allocation of the scarce resource. This concept will be further reinforced by a follow-up assignment.

The situation will be resolved by group interaction and discussion.

II. Objectives

1. The learners will be able to define scarcity in writing or by illustrating a scarcity situation.
2. The learners will be able to identify the scarce resource in a scarcity situation.
3. The children will be able to recognize the dilemma of scarcity by being able to define its components and verbalize that there is not enough of everything they want.
4. The children will be able to react to the scarcity situation in their discussion groups by offering tentative solutions to the problem of scarcity, e.g., first come, first served, needs, teacher decides, lottery, pay for what you want.
5. The children will be able to give an advantage and disadvantage for each tentative solution to the scarcity problem.
6. The children will be able to decide upon one particular method for dealing with scarcity, e.g., pay for what you want.

III. Directions and Instructional Sequence

Room Arrangement and Materials

Prior to class opening one day, the teacher replaces six of the correcting pencils or crayons with six new felt-tip pens. (This assumes that normally there is a one-to-one ratio of correcting crayons to students, and that there is already a self-correcting system in existence in the class.) If a box of correcting crayons exists per table or per class, the teacher may place the felt-tip pens in the box. If each child has a correcting crayon at his/her desk, the teacher may select randomly the correcting crayons of six children and replace them with felt-tip pens.

There is no requirement for a specific room arrangement as the scarcity situation will be incorporated into the regular school day.

Sequence of Activities and Procedures

DAY 1: When a time arises in the class to self-correct papers, the teacher requests that correcting pencils be taken out. Children will discover that some have correcting pencils (or crayons) while others have felt-tip pens. The teacher lets this pass by without discussion. (This explains that the teacher was the instigator of the switch.)

DAY 2: Same procedure.

DAY 3: By this time children will have discussed the scarcity problem (without using the term scarcity) and enough interest should now have been generated.

Discussion Circle: Children arrange chairs in circle for discussion of problem.

Teacher: During correction time I have heard comments and talking. Do you have a problem?

Possible Noneconomic Response: There were some felt-tip pens mixed in with the pencils. (Frustration about not getting to use one.)

Possible Economic Response. Not enough felt-tip pens for everyone.

Teacher: How many students want felt-tip pens? _____
How many felt-tip pens do we have? _____
Do you know the word that describes this situation of not enough items for everybody's wants? ______________________

Possible Response: ?

Teacher: "Scarcity"
What is scarce?

Possible Response: Felt-tip pens.

Teacher: What are other things at school that are scarce?

Possible Response: Time at recess, balls, paper, glue.

Teacher: What is scarce at home?

Possible Response: Money, play-time, good things to eat.

The teacher should then ask a student to redefine the problem. Next, the teacher should elicit responses from the class regarding who gets the scarce resources—the felt-tip pens. What is a "fair" method of distribution?

The children in their own words will come up with such solutions as:

(1) teacher decides, (2) force, (3) lottery, (4) fight, (5) first come, first served, (6) share, (7) a market solution (pay for what you want).

The teacher should put each solution on the board and elicit from the class its advantages and disadvantages.

Follow-up Activities

1. Early in the day the teacher and students should reevaluate their scarcity situation. The teacher should ask students to keep their eyes open during the day in order to be able to cite a scarcity situation in the school and list solutions they think viable.

2. Draw scarcity situations—divide paper into four parts. Describe the situation on cassette machine. This can be placed in a learning center on scarcity.

3. Teacher draws objects on dittomaster. Students add objects that do not make 1:1 ratio = scarcity situation.

4. Children role-play a scarcity situation and discuss responses with class.

5. Map and globe skills. Give each child a product and resource map of U.S. Point out one resource not produced in their state—where could they get it?

IV. Evaluation

1. One day it was raining. There were five people in the family and four umbrellas. Identify the Scarce Item.

Answer: Umbrellas

(More of the same type of situations should be presented to the children.)

2. Draw an example of a scarcity situation. In your own words define what the problem is; state the scarce resource; how could the problem be solved?

3. Mary is a divorced mother of 9 children; she works from 7:00 a.m. until noon at the nursery and from 1 to 6 at the bank—then runs to the market and buys frozen dinners. What scarce resource is causing her to buy frozen dinners rather than starting from scratch with fresh food?

Answer: Time

A Scarcity Simulation

I. Description of Concepts and Rationale

Definitions

scarcity	unlimited wants vs. limited resources
circular flow diagram	graphic representation of simplified market mechanism
allocation	distribution
consumer	one who uses up or purchases a good or service
producer	one who combines resources to produce goods or services
resource	any element in man's environment

Rationale

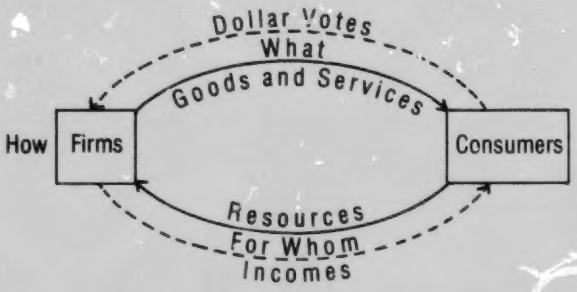
The problem of scarcity is universal in that all societies must face it. Once the dilemma of scarcity has been realized, people must decide how to resolve it. They must decide how to allocate the scarce resources.

A child faces the dilemma of scarcity each day. Should I use the time to play or do my homework? Should I make my mother a necklace or bracelet with the materials? Should I go to the Reading Game Center now or complete my math? A decision must be made on how to allocate resources by all of us.

The children will be presented with a situation in which they have a limited amount of resources. Their task will be to produce an item. Decisions will have to be made as to what to produce, how to produce it and for whom to produce it. The decisions resulting from the questions above are central to all economies. By experiencing this choosing among alternatives, the children will better understand how an economy solves its dilemma of scarcity. The graphic representation of the circular flow diagram will aid the children in understanding how our economy (a market mechanism) solves this problem. This lesson would be taught if the children had decided that a solution to scarcity was "pay for what you want." Teaching a rational decision-making process is essential in elementary education. This exercise will provide important practice in this process.

II. Objectives

1. The learners will be able to list the three questions faced by all societies:
   What to produce
   How to produce
   For whom to produce (who will get what is produced)
2. Given a list of resources, the learners will list three alternative uses for the given resource.
3. Given a blank diagram of the "circular flow" diagram, the learners will fill in the appropriate terms.
4. The learner will demonstrate knowledge of scarcity by drawing pictures to illustrate a scarcity situation (i.e., unlimited wants vs. limited resources.)



III. Directions and Instructional Sequence

Room Arrangement and Materials

The teacher should gather various types of art materials such as felt-tip pens, glue, beads, strings, paper, felt, ribbon. These materials should be divided into six groups. The teacher should make sure that the materials in one group are not identical to those in another group. However, each group of materials should be capable of being used to produce an item. You may place the materials in a bag, box or basket. However, make sure they are covered.

The class should be divided into six groups. Each group should have a "box" of materials. The room should be arranged to facilitate the production of an item. Therefore, the desks should be arranged so that the members of each production group can easily work together.*

Sequence of Activities and Procedures

DAY 1—after the class has been divided into six groups and each group has been given a set of materials, the teacher explains that each group has a set of materials with which they are to produce a marketable good. However, first they are to take one resource at a time and list three uses for that resource. The children should then proceed with the activity. The list of alternative uses for each resource should be recorded for class discussion. Have the children arrange their chairs for a discussion group. One member from each group should name the uses they came up with for each resource in their set. At the end of the discussion, the teacher should explain that during the next session the groups will be required to produce a good. The teacher then asks the children what the three economic decisions they must make are. Guide the discussion to the following end: They must decide "what to produce," "how to produce," and "for whom to produce."

DAY 2—The teacher again arranges the children in the six groups. The three main questions to be answered ("what to produce, how to produce, and for whom to produce") should be reviewed with the children. They should be instructed that they are to produce a good and be able to answer the three basic economic questions. Production should then begin. After a sufficient amount of time has been allowed for

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*This lesson is based on the scarcity lesson found in *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences*, by M. Kourilsky (Educational Resources Associated, Los Angeles, California, 1974).

production, bring the group together for discussion. *Teacher:* Did you have any trouble making your decisions about how to use your scarce resources? *Possible Economic Responses:* Difficulty in deciding how to use the resource; had to decide who in the group was going to produce. *Possible noneconomic responses:* We couldn't decide who was going to make the decisions; they didn't make what I wanted; I didn't get to do what I wanted. The teacher should then display a copy of the Circular Flow Diagram on page 11.* The lesson should revolve around the three basic economics questions and how they fit into the diagram.

Follow-up Activities

1. Have the children fill in blank circular flow diagrams.
2. Set up a learning center in which various resources are displayed. The children must list alternative uses for the resources.
3. Role-play the various steps in the circular flow diagram.
4. Make a bulletin board displaying the circular flow diagram.
5. The more capable children can research how other societies solve the three basic economic decisions.
6. Set up a learning center in which the children must draw pictures of scarcity situations.

IV. Evaluation

1. Fill in the following blank circular flow diagram. (Provide blank diagrams.)

2. List three ways that each scarce resource can be used. (Samples: felt-tip pens, tissue paper, gasoline, coal.)

3. Draw an example of three scarcity situations.

4. Jim decided to produce necklaces with his materials. He had string, beads and macaroni. Since it was near Mother's Day, he felt his good would be marketable. How did Jim decide the following three economic questions?

What to produce? ______________________________

____

How to produce? ______________________________

____

For whom to produce? __________________________

____

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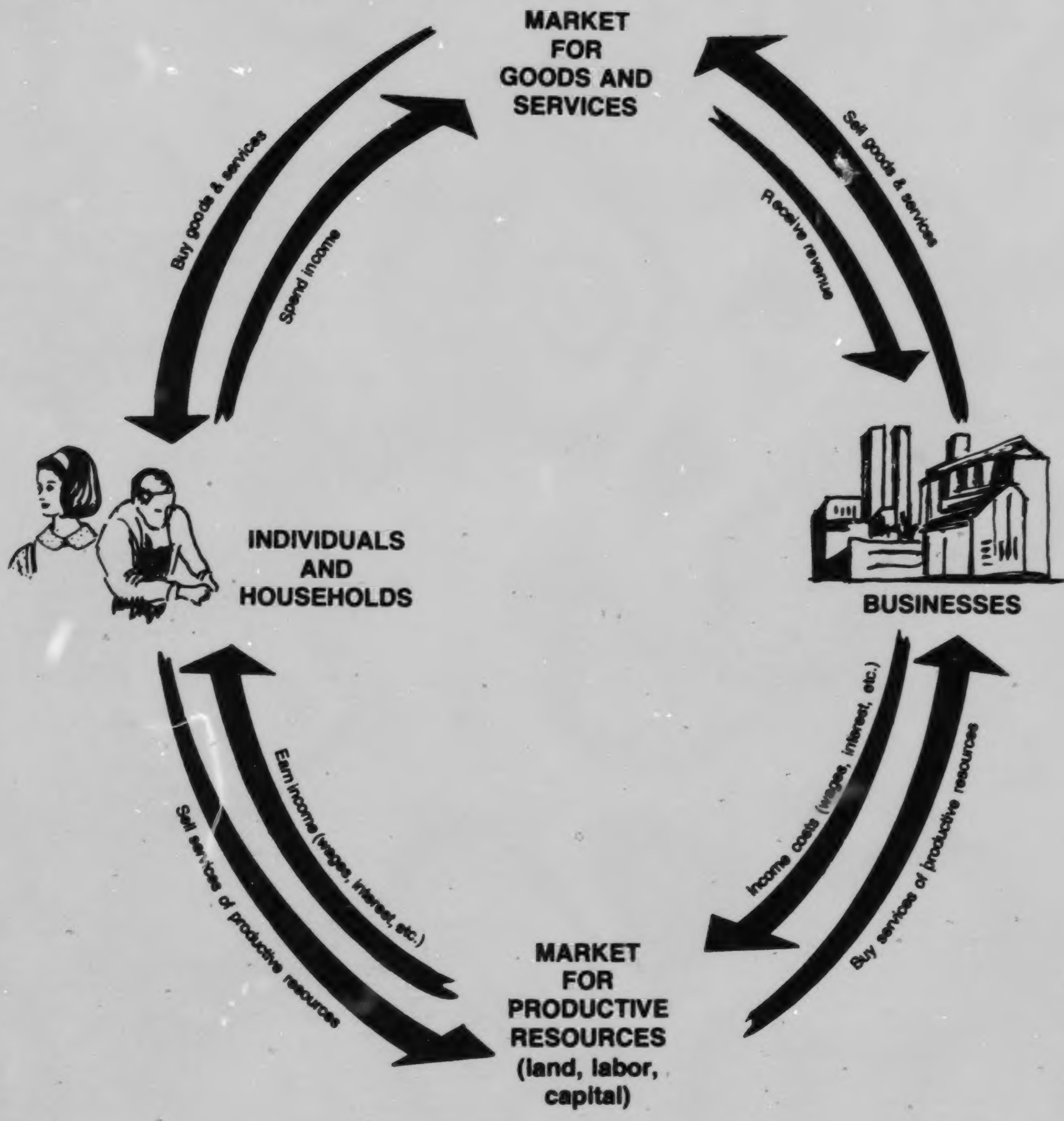
*An alternative flow chart can be found in the *Mini-Society Implementation Kit* by M. L. Kourilsky (Reality Systems Incorporated, P.O. Box 35188, Los Angeles, CA 90035).

THE CIRCULAR FLOW OF ECONOMIC ACTIVITY


MARKET FOR GOODS AND SERVICES
Buy goods & services
Spend income
Sell goods & services
Receive revenue
INDIVIDUALS AND HOUSEHOLDS
BUSINESSES
Earn income (wages, interest, etc.)
Sell services of productive resources
Income costs (wages, interest, etc.)
Buy services of productive resources
MARKET FOR PRODUCTIVE RESOURCES (land, labor, capital)

Every Decision Involves A Cost

I. Description of Concepts and Rationale

Definitions

opportunity cost	refers to the forgone alternative use of the resource
scarcity	limited resources versus unlimited wants
real cost	refers to what was given up—the alternative foregone. Synonymous with opportunity cost.
cost-benefit analysis	the comparison between what you are giving up and what you believe will accrue from your decision

Rationale

The purpose of this lesson is to have the learner experience and analyze the decision-making process that permeates his or her very existence. He or she should be fully cognizant that in every decision there is a cost, the alternative foregone.

II. Objectives

1. Given $10 to spend on one item the learner will list the positive and negative qualities of the item bought and the one(s) given up.
2. The learner will define opportunity cost as *giving up* the second best alternative (using multiple choice, fill-in and essay-type questions).
3. The learner will relate and explain the opportunity cost involved in a recent decision(s) he or she has made.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The class may be arranged in any way convenient for class discussion and so that the teacher is able to write upon a chalkboard or chart. Materials necessary are homework assignment papers, chalk and a chalkboard for the teacher.

Sequence of Activities and Procedures

Entry Behavior: Knowledge of the concept of scarcity. Homework assignment: Teacher: "You have been given $10. Choose two different items that you might want to buy with this $10. Each of these items must be priced at approximately $10. After making these two choices, make an exhaustive list of both the benefits and problems of each possible decision. I would hope that you can think of at least three problems and benefits for each decision."

Put an example on the board of a hypothetical decision-making dilemma. Have the children work through the dilemma listing possible problems and benefits.

Example: Skateboard versus what else you could buy with the money for the skateboard. The learners, with teacher direction, will compile a list of the problems and benefits.

Benefits

fun
everyone else has one
builds balance skills
faster than walking
show off in front of friends

Problems

dangerous
no hill around
mother is against it
brothers or sisters may borrow

Pass out worksheet on decision-making analysis. Emphasize the necessity to return the papers on the following day so that the class can discuss the important concept of opportunity cost and decision-making.

Homework Paper

Name ______________________ Date __________

Directions: List two items that have a value of about $10. Under each category list at least three benefits and at least three problems that might result if you owned the items.

Item 1	Item 2
problems — benefits	problems — benefits

The next day when all the children have returned their homework papers, take one child's and reproduce it completely on the chalkboard. Choose a paper in which the problems and benefits are about the same for each item thereby making the choice a difficult one. Focus upon the uncertainty involved in decision-making.

Teacher: "What is the 'cost' of John buying a skateboard? It is one of the other things he couldn't buy with the $10." (Try and get the children to formulate this idea; but state it for them at the end, and write it on the board.)

Teacher writes on board: The real cost or opportunity cost of buying the $10 skateboard is the giving up of the next best alternative, which in this case might be going to the school fair ($10 total).

The teacher orally should give another example to reinforce the concept and to check to see how well the children have learned the concept.

Have the children then make a choice on their homework papers of which thing they would actually buy. At the bottom they will write and fill in: The opportunity cost or real cost of buying a ______________________________

____

for $10 is the fact that ______________________

______________________________________.

Collect and correct the papers and go over them with the children as soon as possible. Restate the concept in terms of what you give up is your second-best alternative.

Follow-up Activities

1. Class discussion on the opportunity cost of increasing lunch period by 15 minutes.
2. Class discussion on the opportunity cost of reducing lunch period by 15 minutes.
3. List the opportunity cost of being teacher's pet.
4. Have the children write a list of those items on which they spent their allowance (assuming most children in your class have an allowance) and the opportunity cost of each expenditure.

IV. Evaluation

1. Opportunity cost or real cost is ______________.

2. Susan wants to play with her friend or she can babysit for $1 an hour. What is the "real cost" of Susan choosing to play with her friend?

____________________________________.

What is scarce? ____________________________.

3. If Sam doesn't eat his green beans, he doesn't get dessert. What is the real cost of Sam not eating his green beans?

A. He will have a vitamin deficiency
b. He will have to do the dishes
c. The Jolly Green Giant will be angry with him
d. No dessert
(Answer is D.)

4. In any decision-making process there is a cost. That cost consists of ______________________________.

5. Alice has a business where she is making silk flowers but changes to one where she teaches soccer. Her opportunity cost is ____(The money or whatever she got from her second-best alternative which in this case was making flowers.)

6. What is another term for opportunity cost? ____________________(real cost).

24

Opportunity Cost Learning Center

I. Description of Concepts and Rationale

Definitions

scarcity	limited resources versus unlimited wants
opportunity cost	refers to the foregone alternative use of the resource
real cost	refers to what was given up—the alternative foregone; synonymous with opportunity cost.
accounting profit	when sales (total revenue) are more than expenses (out-of-pocket costs)
accounting loss	when expenses (out-of-pocket costs) are more than sales (total revenue)
economic profit	an amount earned in present employment that is greater than the individual's best alternative
economic loss	an amount earned in present employment that is less than the individual's best alternative
normal profit	an amount earned in present employment that is equivalent to the individual's best alternative
cost-benefit analysis	the comparison between what you are giving up and what benefits you believe will accrue from your decision
pecuniary	a monetary consideration
nonpecuniary	a nonmonetary consideration

Rationale

The purpose of this learning center is to have the children work with and reinforce the economic concepts of opportunity cost, scarcity and cost-benefit analysis. Due to scarcity, the learner must make decisions about his limited resources. The "real cost" or "opportunity cost" is what must be given up, or the cost borne by giving up the second-best alternative.

The learning center will provide the children with many opportunities to compute accounting profit or loss, economic profit or loss and normal profit. Self-check sheets will be available to help children to find out whether they understand how to determine correctly whether they have made a profit or loss. By using both pecuniary and nonpecuniary elements the students will be able to discover the elements which are the main function of this learning—that of making a rational decision. You do not just consider your out-of-pocket costs and total sales; you must also consider the alternative uses for your resources and time.

II. Objectives

1. Given two sets of figures, expenses and sales, the learner will determine if there is an accounting profit or loss.
2. Given the accounting profit or loss in addition to some alternative uses for resources, the student will be able to ascertain whether the individual is making a normal profit, economic profit or economic loss.
3. Given a statement, "What is the 'real cost' of taking the job?" the student will reply what (s)he has given up—the value of the second-best alternative.

III. Directions and Instructional Sequence

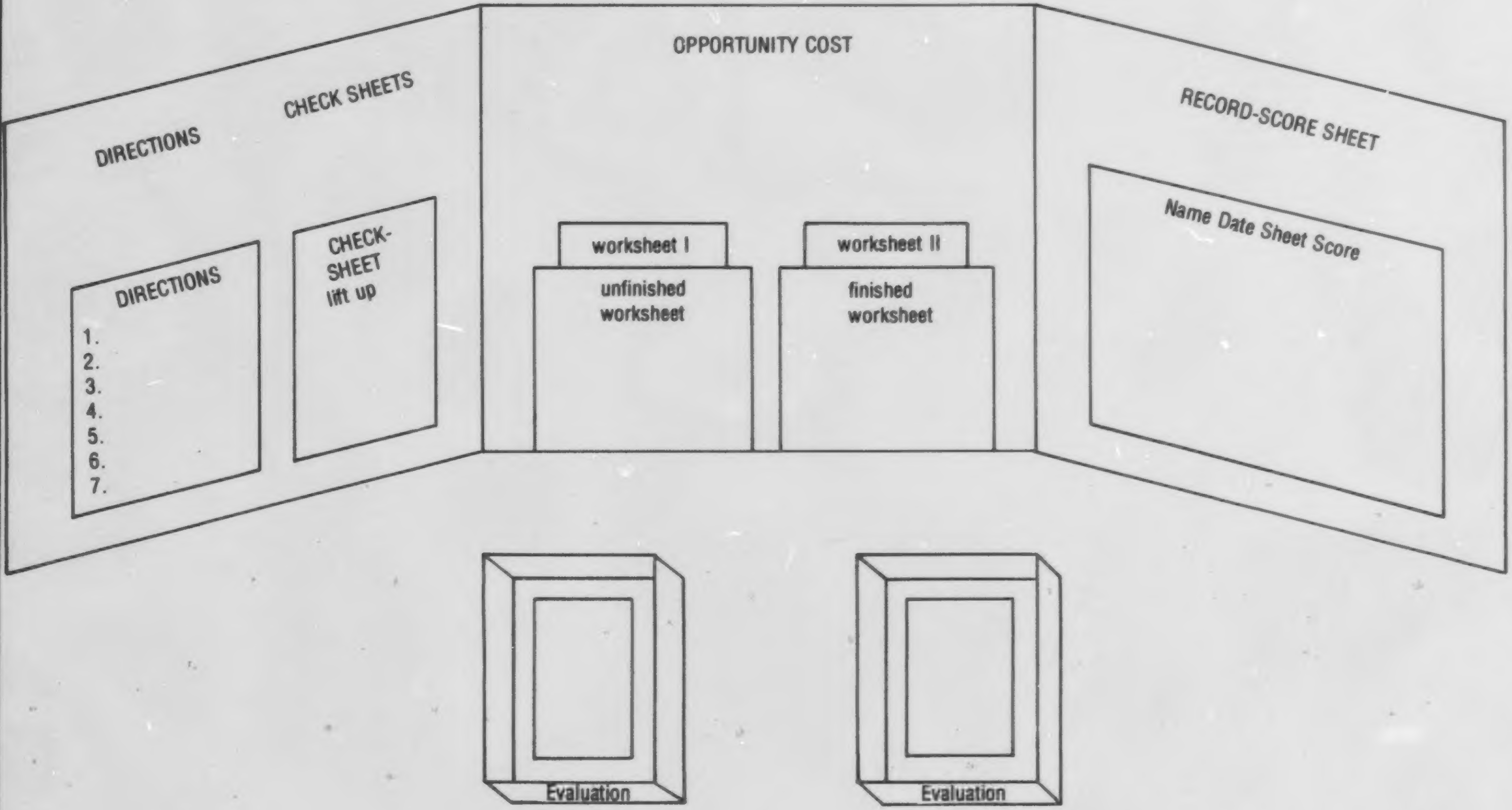
Room Arrangement and Materials

The following describes a portable learning center which can be used by one or two children and is teacher-independent. It contains directions, worksheets, check-sheets and evaluations. Delete answers when reproducing worksheets.

Directions

1. *Take worksheet.*
2. *Follow directions and complete the worksheet.*
3. *Check your answers with the check-sheet and score your paper.*
4. *Mark on the record-keeping sheet which worksheet you have done and mark the score.*
5. *Put your paper in the finished-paper box.*
6. *Do evaluation sheet and place in proper place.*
7. *Have you cleaned up and replaced all necessary materials?*

OPPORTUNITY COST LEARNING CENTER DIAGRAM


OPPORTUNITY COST
DIRECTIONS
CHECK SHEETS
DIRECTIONS
1.
2.
3.
4.
5.
6.
7.
CHECK-SHEET lift up
worksheet I
unfinished worksheet
worksheet II
finished worksheet
RECORD-SCORE SHEET
Name Date Sheet Score
Evaluation
Evaluation

WORKSHEET I

Name ______________________________ Date ______________________________

SITUATION: *CANDY BUSINESS*

EXPENSES	
Sugar	89 golds
Chocolate	100 golds
Vanilla	29 golds
Butter	25 golds
Rent	10 golds
MONEY EXPENSES =	253 golds

SALES	
Billy	10 golds
Jose	50 golds
Susie	75 golds
Marilyn	10 golds
Leroy	20 golds
Dolores	75 golds
Darlene	30 golds
TOTAL SALES =	270 golds

Determine if there is an accounting profit, or accounting loss. How much are they making or losing? Do the figuring necessary to tell which is the correct answer. Circle the correct statement and fill in the blank space.

There is an accounting profit of __________ golds.
There is an accounting loss of __________ golds.

Response: Accounting profit of 17 golds.

WORKSHEET II

Name ______________________________ Date ______________________________

SITUATION: *WALLET BUSINESS*

EXPENSES	
Felt	10 golds
Thread	5 golds
Needle	5 golds
Worker	30 golds
Rent	10 golds
MONEY EXPENSES =	60 golds

SALES	
Chip	10 golds
Gary	5 golds
Dominick	10 golds
Carol (custom made)	20 golds
Darlene (with initials)	20 golds
TOTAL SALES =	65 golds

Determine if there is an accounting profit, or accounting loss. How much are they making or losing? Do the figuring necessary to tell which is the correct answer. Circle the correct statement and fill in the blank space.

There is an accounting profit of __________ golds.
There is an accounting loss of __________ golds.

Response: Accounting profit of 5 golds.

WORKSHEET III

Name ______________________ Date ______________________

SITUATION I:

Dick and Darlene have two businesses but haven't enough time to keep them both working. They must give up one of the businesses. Dick and Darlene's Dog Kennels have made an accounting profit of $125.00 per week. Their Housekeeping Service has been earning $100.00 a week.

What is their best economic decision? ______________________

Answer: Keep the dog kennels.

Will they make an economic profit or loss or a normal profit by keeping the kennels? ______________________

Answer: economic profit.

How much will their profit or loss be? ______________________

Answer: $25.00 a week.

SITUATION II:

Now suppose that Dick and Darlene still have the same problem of being able to run only one business. However, instead of making $125 for the Kennels and $100 for the Housekeeping Service, suppose that they are making $125 for the Kennels, as we previously said, but they are earning $150 for the Housekeeping Service. Now what is their best economic decision? ______________________

Answer: Keep the Housekeeping Service

SITUATION III:

Dick and Darlene still have the two businesses, and they still must make a decision as to which business to keep open. The Kennels are making $125 per week and the Housekeeping Service is making $150 per week. Now we have another consideration. Dick and Darlene love taking care of their kennels and they *HATE* having to clean up. They love their kennels so much that they feel it is worth at least $50 a week to them to run the kennels. Now, what is their best economic decision? ______________________

Answer: to run the kennels.

Will Darlene and Dick be making an economic profit, economic loss, or a normal profit? ______________________

Answer: Economic profit.

How much will their profit or loss be?

Answer: $25.00 a week.

WORKSHEET IV

Name ______________________________ Date ______________________________

SITUATION I:

Carol and Susan are real entrepreneurs in the classroom town of Starville. They are running five different businesses. They own a candle shop which is making $20 a week; a wallet business making $15 per week; a candy business making $50 a week; a plant shop making $10 per week; and a calendar business making $35 per week. The girls decide that they must close some of these businesses. They have no time to be consumers. They are constantly working, having no time to shop. They decide to close all but one of their businesses. Since they have made an accounting profit in all of their businesses, first they need to compare their earnings in each business.

What is their best economic decision? Which business should be kept open?

____

Answer: Candy business.

SITUATION II:

Carol and Susan have kept their candy business and given up their other businesses. Carol and Susan realize that they are making the most money from their candy business, but their mothers are angry with them for messing up their kitchens, and materials cost a lot both in terms of time and of money. The girls really used to enjoy the calendar business. They were able to play together, using markers, and they could work on the calendars both at school and at home. The girls decide that the calendar business has extra benefits worth $15 per week.

Now what is their best economic decision? ______________________________

Answer: Still the candy business (there is a cost to changing businesses).

Will they be making an economic profit, economic loss, or normal profit? __________

Answer: Normal profit.

SITUATION III:

Carol and Susan are still not happy with their candy business. They sit down together and talk about the difference between running a candy store and a calendar store. After a lot of talk, they decide that the calendar business is really worth an additional $25 per week because they don't get in trouble at home and they don't have to buy so many ingredients.

What is their best economic decision, now? ______________________________

Answer: Calendar business.

Will they be making an economic profit, economic loss, or normal profit?

____

Answer: Economic profit.

How much will their economic profit or economic loss be? ____________________

Answer: $10.00 per week.

IV. Evaluation

1. Opportunity cost or real cost is ____________________

2. Situation: *STATIONERY BUSINESS*

EXPENSES	
Paper	25 golds
Markers	10 golds
Workers	40 golds
Rent	5 golds

MONEY EXPENSES =

SALES	
Carol	20 golds
Clarence	5 golds
Susie	10 golds
Mrs. Schulman	25 golds
Mercedes	20 golds
Andrew	5 golds

TOTAL SALES =

Determine if there is an accounting profit or accounting loss. Circle the correct words. Do the figuring necessary to tell which is the correct answer.

3. Ellen and Tom own two businesses and are finding that they do not have enough time for watching television. They decide they must give up one of the businesses in order to have more free time. Their first business is a candy factory from which they are making $150 per week. Their second business is a flower shop from which they make $275 per week. Which business should they close? What is their best economic decision? ____________________

Now suppose that Ellen absolutely adores chocolates and is allergic to flowers. She and Tom discuss this matter and finally decide that it is worth at least $50 per week to them to have candy easily accessible. Now, what is their best economic decision? ____________________

Are they making an economic profit, an economic loss, or a normal profit? Show your figuring.

Let's Make Bread: A Simulation Activity on the Economic Problems of What, How, and For Whom to Produce

I. Description of Concepts and Rationale

Using bread as a sample product, this series of activities is intended to give children in the intermediate grades a basic understanding of the three economic questions which each society or group must answer: what to produce, how to produce it, and for whom to produce. Students will also explore the concept of demand, eventually creating and graphing their own demand curves for the product being produced. These understandings will evolve from participation in an actual production activity: the making and selling of bread within the classroom.

II. Objectives

1. Students will be able to explain that all societies must make three basic economic decisions: what, how, and for whom to produce.
2. Students will be able to explain the concept of demand as wants backed by the ability to pay.
3. Students will be able to explain some of the factors which affect demand and the quantity demanded of a good or service.
4. Students will be able to explain that the how-to-produce decision is generally made on the basis of the relative prices of inputs as related to their productivity.
5. Students will be able to explain that the what-to-produce decision is made on the basis of consumer demand in a market system.
6. Students will be able to explain that in a market system the for-whom decision is based on the worth of what individuals do in the production process.
7. Students will be able to verbalize the significance of a market survey (or demand schedule) and its relationship to a demand curve. Students will be able to graph demand curves based on demand schedules.

III. Directions and Instructional Sequence

Room Arrangement and Materials

As for many lessons using an active-participation format, this lesson is greatly enhanced by access to a flexible learning environment. A room with movable tables is ideal, though not absolutely necessary. Tables and chairs are preferable to individual desks, both for the production phases and for initiating and follow-up discussions. (Movable chairs allow students to set up production lines, and also to adopt the circular discussion format, which enables each member to see all other discussants.)

Certain films enhance this lesson greatly (see Appendix for names), and the equipment for screening these is, of course, necessary. These films can most probably be obtained from your school or district audiovisual department, or can be ordered from the production companies.

For the production phase of the project students will be baking bread. For this they will need the actual ingredients for the bread, as well as bowls, spoons and/or mixers, measuring accouterments, etc. You or your school can provide these. An oven of some type is essential. Should you have access to a Home Economics room, arrange to use the ovens there. Other alternatives are available, however, and are just as successful. Some portable toaster-ovens are capable of bread-baking. Bring in your own or have one of the children bring one from home (but be sure to ascertain the capabilities of the equipment before production is attempted). Other alternatives: some schools have a small stove and oven in the teachers' room. See if you can arrange for its use. Or speak to the cafeteria staff—they may be willing to arrange for the use of their equipment.

For the discussion and debriefing phases, a chalkboard is essential. If you can arrange for a small portable math board (one with permanent graph quadrants and lines), do so. Otherwise, create your own permanent graph board using peg board with painted lines (use golf tees and yarn to create curves). Or make several disposable graphs for discussion, using large rolls of butcher paper. Students will need individual graph paper on which to create their own curves. Use paper on which the graph squares are quite large.

Useful items for reference are: books on bread-baking with alternative recipes, a dittoed sheet on safety in cooking.

Sequence of Activities and Procedures

1. a. Initiate a discussion with your students on what kinds of things they and their parents want. Begin to distinguish between the things we want and the things we get. Talk about the possible reasons why we do not get all the things we want. Eventually, the reason—not enough money—will arise. To initiate the discussion you might have each child list ten things he or she wants and estimate how many of these (s)he is likely to get in the next month.

b. Magically transport your class to a desert island with nothing (not even their clothing): no eye glasses, no fillings in their teeth, no food, no shelter. Draw the island on the board. Draw a lagoon with fish in it and a coconut palm with coconuts growing very high up in the tree. These are natural resources. Ask them WHAT they want to produce or have produced to get their island society going Ask them which of the foods or what combination of foods they want to produce. Ask them HOW the foods can be produced (fish—with hands, with a net made of palm leaves, with bamboo poles, etc.; coconuts—by climbing the tree, by shaking the tree, by making a human pyramid to reach the fruit, etc.). Ask them WHO will get the food and how much each will get. (Will the workers get all, or will everyone get some whether or not (s)he works? Will people with harder jobs get more than people with easier jobs? Review that these same decisions (WHAT, HOW, and FOR WHOM) are made by all groups of people (all societies). Emphasize that the way they make the decisions is connected with the type of economy they have, but that *all* economies make these decisions.

c. Introduce the idea of having a production project in the classroom. The product being produced will be bread (analogous to one of the first things produced on the island—food of some sort). Have the students discuss what a baker does and why he does it (because he may like it, and to earn money). Show the film "Bakery Beat" for an idea of the things a baker does to produce bread. Depending on the age and maturity level of your class, they may benefit from the extra reinforcement provided by a field trip to a bakery. Whether or not you include a field trip, do discuss the following points:

(1) WHAT to produce is already decided. The baker has decided to produce bread. But how does the baker know that people want to buy bread? Because they cast "dollar votes" (they buy the bread). What would happen to the baker if people stopped buying bread or bought much less bread? He would know that they weren't voting for bread as much as before. Distinguish between wanting bread (desire) and wanting bread enough to pay money to buy it (demand). We all want things but we do not buy all the things we want. This is because we are limited in the amount of money we have to spend, and we make decisions about which of those things (and how much of each) we will spend our money on. When we want a good or service *and* are willing to back the desire with money, we are *demanding* the product.

(2) HOW to produce the bread is a matter of choice for the baker (actually the bakery owner). Will each baker make one loaf of bread from start to finish, or will many workers each assume one phase of the baking operation? Will the bakery owner use all manual labor (have bakers knead the bread by hand and mix it with a spoon), or will he use machinery to perform some of the tasks? The children will probably already have some ideas about *division of labor* and its use in producing better, faster, and/or more cheaply. Ask them to think about how bakers (or any businesspeople) make these sorts of decisions. Introduce the concept of price versus productivity by asking questions of the following sort:

Question

If Johnny is willing to work as a baker for $1 per hour and Becky is willing to do the same for $2 per hour, whom would you hire?

Possible Response

"Johnny" (or "Becky," or "I don't know.")

Question

What if I told you that Johnny can produce two loaves of bread in an hour and Becky can produce five loaves of bread in an hour. Would you change your mind?

Possible Response

"Yes, I'd hire Becky."

Question

"Why?"

Possible Response

"Because you get more bread per dollar paid if you hire Becky."

Do several of these problems, progressing to those for which the children must actually tackle the division process for an answer. Show them by performing the arithmetic on the board that knowing price or knowing productivity alone is not enough for a logical decision. Emphasize that we can tell which resource is "cheaper" to use by dividing the price (for the use of the resource) by the productivity for that resource. Be careful to use numbers which divide evenly, or children may get bogged down with the arithmetic rather than focusing on the concept. Bring in the concept of using a resource other than human labor with examples such as:

Problem

A baker can knead dough by hand. In one hour he can knead enough dough for six loaves of bread. He earns $6 per hour. A dough-kneading machine can be rented for $12 per hour. It can knead enough dough for 30 loaves of bread in an hour, but a person to run the machine is needed, and that person earns $3 per hour. Which combination is "cheaper" or has a more favorable price/productivity ratio?

Answer

It costs $1 per loaf to have the baker knead by hand. It costs $.50 per loaf to have the machine and machine operator knead the bread. The machine/man combination is more economical.

(3) FOR WHOM to produce completes the cycle. Who gets the bread the baker produces? People who have money and decide to spend it to buy bread. But, who gets the money from the production of the bread? The bakery owner gets some of the money in the form of profits. The bakery workers get some of the money in the form of wages. The owner of the building gets some as rent for the building. People who sell mixers and other equipment also receive some money for their materials which the baker has used, as do those who provide flour, eggs, etc., for the baking of the bread. When these people get their money (for the *factors of production they provide)*, they become the FOR WHOM. They can then take their money and "cast dollar votes" (buy things). By doing this, they receive goods and services from the producers, and they tell the producers which products are demanded by the consumers. The baker knows by how much people buy papaya bread whether or not it is popular at the price he is charging. He may decide to continue making papaya bread, or he may change to whole wheat or cinnamon bread.

2. a. Initiate the production activity by showing the film "Behind the Scenes at the Supermarket" to emphasize that most often we buy products from a "middleman" rather than directly from the producer. Those people also earn money for the *service* they provide.

b. Have students list in discussion all the tasks which must be completed if they are to produce and sell bread in the classroom. Have sample bread recipes available to aid in providing this information. The list will probably look something like this:

- People to measure the ingredients
- People to mix them
- People to knead the dough
- People to shape the dough into loaves

- People to bake the bread
- People to wrap the cool loaves
- People to deliver the bread to the store
- People to sell the bread and collect the money in the store.

Indicate that as bakery head you will pay each worker a set amount in "classroom money" (any paper money you choose to utilize, including prefab play money, Monopoly money, or money which you have the children actually produce themselves). The amount of money paid in wages should be equal for all jobs for this simulation.

c. Review the WHAT, HOW, and FOR WHOM decisions within the context of the production of bread in the classroom as follows:

(1) HOW to produce. This is perhaps the easiest to review in this context since your options are severely limited. You may mention that machines would be helpful in the production of bread, but indicate that the large (and expensive) bread mixers and kneaders are difficult to bring into the classroom. In order to avoid hurt feelings, review the concept of hiring workers on the basis of price versus productivity. Role-play a situation in which one delivery person dawdles, and so delivers the bread more slowly (with the end result being that less bread is delivered by one than another), or in which one worker takes a great deal more time to measure than another. You may also role-play a situation in which the work is comparable in speed, but in which one charges a higher wage than another. Ask the students observing the role-playing to decide whom they would hire if they were bakery owners. Be sure to mention that you do not anticipate this problem in your classroom since all are good workers. Since all will receive the same wages for this activity, you will not actually have to solve this problem in your bakery.

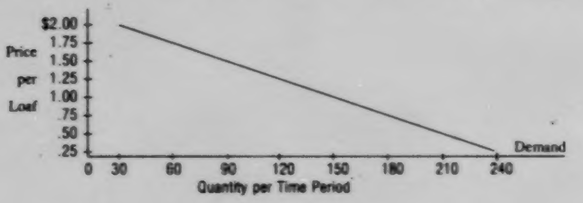
(2) WHAT to produce. Remind the students that WHAT to produce includes the decision of *how much* to produce of that product. Ask them to help you make this decision by participating in a "market survey." Based on the stated wage each will be paid, perform a market survey as follows:

Since the decision of the general product has already been made, have students indicate their demand for two different kinds of bread which you might be able to make. Depending on your own skill, on the skills (manual) of your students, and on the cost and availability of ingredients, you might select among cinnamon bread, whole wheat bread, egg bread, and white bread. Remind students how much they will earn in wages. Ask them how much bread they would be willing to buy with their wages (how many mini-loaves) at the alternative prices you will list. Label this column "Price per Loaf." List prices down one side of the board. Across the top, write the two types of bread they might buy. Beneath each type of bread, list the headings "Quantity Demanded" and "Total Revenue." Be sure to indicate the time period for this demand schedule—you are asking how many loaves they would be willing to buy at alternative prices *tomorrow* during the bread sale only. For each price, have each student indicate his/her quantity demanded of each type of bread. Add these for the aggregate quantity demanded at each price. Multiply each quantity demanded at a price by that price to get total revenue. Your "market survey" or "demand schedule" will look something like this:

Demand Schedule or Market Survey for Bread

Price per Loaf	Cinnamon		White	
	Quantity Demanded	Total Revenue	Quantity Demanded	Total Revenue
$ .25				
.50				
.75				
1.00				
1.25				
1.50				
1.75				
2.00				

Consider that if a student is earning $2, he cannot buy more than one loaf at $1.50 per loaf; however, students may decide among themselves when you are taking the survey that they would split the price of a loaf two or more ways. Emphasize that producers want to know what products people will buy *and* how much they will buy at various amounts so they can decide what and how much to produce. Demonstrate on the board, on graphing chalkboard, or on a peg board or butcher-paper graph how to plot the demand for one of the types of bread. Go step by step, having children come to the board to help after you plot the first few points. For the second type of bread, have each student plot the demand curve on graph paper at his/her desk. Ask the students to generalize, based on these two graphs, something about demand curves. Your curves will look something like this:



Students will notice that the curves go "downward" to the right. Qualify this for them by returning to the demand schedule and indicating that as price goes up, quantity demanded goes down. Remind them that the inverse also seems to be true from your graphs and demand schedule—as price goes down, the quantity demanded goes up. Have the students decide why this is true. They will discover and verbalize that which they already know—people are willing to buy more of a thing at lower prices than they are at higher prices. Ask students to think about how they would act if they were the suppliers of the bread. Would they be willing to supply more at lower prices, or just the opposite? If time allows, do a supply schedule like the demand schedule. Use columns labeled "Price per Hour" (Wage per Hour) and "Quantity Supplied (Hours)," and have children indicate how many hours they would be willing to work after school during the next week for alternative wages. Show that the supplier is willing to supply more at higher prices and less at lower prices.

(3) Review the FOR WHOM decision. Within the context of the bakery lesson in the classroom, all become "FOR WHOM" during the buying phase since all will be employed and all will have dollar votes to cast. However, what if there were not enough jobs to go around? Who would become the FOR WHOM when time came to buy bread? The FOR WHOM would be those who were chosen for the jobs of baking, kneading, delivery, etc. Remind the students that in the real world people would be chosen for these jobs based on price versus productivity.

d. Vote on the type of bread which will be produced the next day, and announce the price at which it will be sold. Explain that you (as the supplier) have decided to sell at that price to cover the cost of the *factors of production* you must hire, including some profit for yourself (so that you may be included in the FOR WHOM group). Arrange this so that each child is able to buy one or two loaves with his/her money.

3. a. Before the culminating activity, the production and consumption of bread, review safety and health rules with the students. Cleanliness is an important factor to cover, especially if your baking session follows recess or lunch.

b. Divide the children into groups to cover the tasks they have already listed. Each group performs its function in turn, ending with the delivery of the bread to the store, the payment of wages, and the buying of bread from the store. (The "store" may be as simple as a corner desk in the classroom. Be sure to pay the store salespeople before they actually perform the sales function so they will be able to buy too, or perform the sales function yourself.)

Follow-up Activities

1. As a follow-up activity, have students discuss what makes them want (and decide to spend money on) various things. Use the demand schedule and curves created earlier as a lead-off example. Ask questions about the demand for two types of bread. There was probably not much difference in the demand schedules for the two types of bread in your class, since these were the only products students were offered. Ask why they voted for one type of bread rather than the other. The probable answer is "Because we like it better." Redo the demand schedule for some type of candy. Ask the children to consider the hypothetical situation of being able to buy bread or candy with their wages from baking bread. Many, if not all, will opt to spend most of their money on candy. Emphasize two points:

a. They would buy based on their tastes and preferences (what they liked).

b. If everyone bought candy instead of bread, the bakery would go out of business. They would lose their bakery jobs and, unless they could find other work, they wouldn't be in the FOR WHOM group when the next time came to buy.

2. Also discuss the limiting factor of income. Students couldn't buy more than a certain amount of bread because they had limited incomes. Discuss the real world, in which people have limited amounts of money and can choose from many things on which to spend it. How do they decide how much of which things to buy? They consider what they like and want, but income is also a consideration. If you have $2, and bread is $1 per loaf, you can buy two loaves of bread, or you can buy one loaf of bread for $1 and something else for the other $1, or you can buy no bread and spend the $2 on other things entirely.

3. A final item to discuss is the effect of the prices of complements and substitutes on the demand for products.

a. Introduce the terminology: a complementary good "goes with" or is used with another good. A substitute is used in place of another good. Use the examples of bread and butter as complements, and of bread and candy as substitutes.

b. Pose the following questions: Suppose you like to eat your bread with lots of butter on it. Remember, you have a limited income. If the price of butter is very high, would you buy a lot of bread? Might you buy something else instead of the bread? Suppose you like candy very much, but the price is very high. You could buy lots of bread for the same amount of money as you can buy one candy bar. You are very hungry. Might you buy bread even though you like it less than candy?

4. Review those things which affect demand: tastes and preferences, income level, and the price of substitute and complementary goods.

IV. Evaluation

Although you will be performing formative evaluations informally throughout the discussion, these questions are designed as an objective measure for the attainment of the specified objectives. These items should be administered at the close of the entire lesson, and cover objectives 2-6. Objective 7 should be verified empirically as you observe the children in the follow-up activity. Objective 1 should also be tested in the follow-up discussion.

1. In economics we use the word *demand* to mean:
- a. when you want something very badly.
- × b. when you want something and are willing to pay money for it.
- c. when you go up to someone, grab him, and make him give you what you want.

2. Joan is producing candy apples. She wants to find out if they will sell well, so she goes around school asking everyone how many candy apples they will probably want tomorrow when she is going to sell them. Joan made a mistake in her economics. What was it?
- × a. She should have asked how many candy apples people would be willing to *buy* at the price she was going to charge.
- b. She should have asked how much money each person gets so she could figure out how many candy apples they could buy.
- c. She should have asked people if they liked candy apples better than regular apples.

3. Ed the baker is baking and selling spinach bread. Edna is also a baker but she is baking and selling chocolate chip bread. The breads sell for the same price per loaf, but people are *demanding* more of Edna's bread then of Ed's bread. What do you think is the economic reason for this?
- a. People can't afford Ed's bread.
- × b. People like Edna's bread and would rather spend their money on it than on spinach bread.
- c. People feel very sorry for Edna and think if they buy her bread she will feel better.

d. The price of butter is very high right now.

4. Someone has just invented a new car which you can fold up and put in your pocket. When you want to use the car, you just take it out and it becomes a regular car right away. Everyone *wants* at least one of these, but there is very little *demand* for them. What do you think is the economic reason?

× a. Because they cost $30,000 for each car and people might not have any money left to buy food if they buy a car like this.
b. Because people are funny. Nobody wants to be the first to have one.
c. Because people think the cars should cost a lot more than that, especially if they are any good at all.

5. You own a business where you make signs. You want to hire another artist to draw the signs. Paul is charging $5 per hour and Lisa is charging $1 per hour to draw signs. Using the "economic" way of deciding, whom would you hire?

a. Paul.
b. Lisa.
× c. Not enough information.

6. Brad and Jean are both candy apple dippers. They dip the apples into the candy and twirl them around until they have lots of candy stuck on. Brad twirls ten apples an hour. He wants to be paid $2 per hour. Jean twirls eight apples per hour. She wants to be paid $1.25 per hour. Which one would you hire to be most economical?

a. Jean, because she charges less.
b. Brad, because he charges more.
c. Brad, because it costs less per apple to hire him.
× d. Jean, because it costs less per apple to hire her.

7. Terry produces dog leashes. He lives in a market system, like the one we learned about in our bakery lesson. How does he know how many leashes to produce, and whether to keep on producing leashes or to make something else?

a. He knows because he likes dogs a lot. He makes as many leashes each year as there are dogs in the city.
b. He knows because the government tells him he has to produce dog leashes and tells him how many to make each year.
× c. He knows because he keeps track of the demand of consumers for dog leashes. He produces as many as he thinks people will buy at his price.

8. In a market system, if you produce chocolate-covered pickles and people don't demand many at your price, you should:

a. keep producing them because *you* like them.
× b. produce something else people will demand more of.

9. In a market system, how do we decide who gets the money to buy the goods and services (who is in the FOR WHOM group)?

a. The government picks the best citizens for this group.
× b. The people who sold their labor (or other resources) get to be in that group.
c. Everyone automatically gets to be in the group.

10. You are a great frog trainer. You are the best one around. But this year no one has cast any dollar votes for the production of trained frogs. You can't sell your productive resource. What will happen to your power to cast dollar votes? Answer in a paragraph or a few sentences. CRITERION FOR CORRECTNESS: You won't be in the FOR WHOM group unless you find a different job or get unemployment insurance payments.

Appendix A

Films

Bakery Beat
Medium .... Film
Purpose .... To show the children how a bakery runs.
Application . The children see the film as a forerunner to visiting a bakery.
Content .... The film illustrates the many jobs that are done in a bakery.

Behind the Scenes at the Supermarket
Medium .... Film
Purpose .... To show the children how a supermarket works.
Application . The children see what happens to bread after it leaves the bakery, and also how a store is run.
Content .... Shows the workings of a supermarket.

Appendix B

Sample Recipe

Bread*

1 cup milk
1 pkg. yeast
1 tsp salt
1 egg
3 T sugar
3 T shortening
3½ cups flour
¼ cup water

Scald milk. Add salt, shortening, sugar, and egg. Mix. Cool. Sprinkle dry yeast on lukewarm water. Combine the two mixtures and add enough flour to make a soft dough. Knead. Place in a greased bowl and let rise until double in bulk. Shape into rolls; place in a greased pan. Let rise again until double in size. Bake at 350° until golden brown.

**Teachers using the metric system may want to convert the recipe to metric equivalents.*

Property (Collective vs. Private Ownership)

I. Description of Concepts and Rationale

Definitions

property	tangible goods
resources	goods and skills possessed by groups or individuals
collective ownership	ownership of resources by an entire group
private ownership	ownership of resources by individuals
market	the mechanism by which buyers and sellers exchange goods and services to their mutual satisfaction
circular flow diagram	graphic representation of a simplified market mechanism, showing how a free enterprise system solves the basic economic problems
planned economy	an economy in which the planners determine what, how, and for whom to produce
income	assets received in exchange for resources
productivity	the relationship between resources used and amount of products generated

Rationale

The purpose of this lesson is to compare how an economy functions under the conditions of private versus collective ownership of the resources. By participating in either a simulated private, or a simulated collective economy, the children will be able to compare and contrast the advantages and disadvantages of both systems.

As a result of the discussion following their experiences, the children may state a perference for one or the other system. They will realize that the type of economy chosen mirrors the value system of the individuals.

II. Objectives

1. The children will be able to list or discuss orally the characteristics of private ownership:
   The resources are owned by individuals.
   The individual has a right to make decisions concerning his/her own resources.
   The income from sale or use of resources accrues directly to the individual owner.
2. The children will be able to list or discuss orally the characteristics of collective ownership:
   The resources are jointly owned by all members of the defined group.
   Decisions concerning the use of the resource may be made by the group as a whole or by planners.
   The distribution of the income from the sale or use of resources will be determined by the group as a whole or by the planners.
3. The children will be able to discuss orally the major aspects of the Circular Flow Diagram, and how it relates to the concept of private ownership:
   The diagram explains the interaction of the what, how, and for whom decisions.
   The basic aspects of private ownership of resources can be traced through the diagram.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The teacher will provide four boxes of materials, each containing paper, felt-tip pens, glue, tissue paper, and scissors. Adequate table space should be provided for every student to work. A space for groups to meet should be provided.

Sequence of Activities and Procedures

The teacher will divide the class into four groups. A member of each group will pick a card out of the hat. The card will determine whether they are in a private or collective ownership group. Two groups will be simulating a private ownership situation, and two groups will be simulating a collective ownership situation. Each group will receive a box of materials. Each child in the private ownership groups will select a material to own. The materials in each of the collective ownership groups will be owned by all the members of that group. In addition, each collective ownership group must select a leader (planner) to make the decisions, i.e., what to produce, how to produce, and for whom to produce (how the income is distributed).

The teacher should explain to the children that they are to produce some kind of good utilizing the materials in the box. The teacher should remind the collective ownership groups that they must abide by the decisions of their respective planners. The members of the private ownership groups must work out individual arrangements for the use of privately owned resources to produce their goods.

The children should form their groups and begin making decisions and producing their goods. Sufficient time should be allowed for the groups to engage in the completion of the activities. It is suggested that two class periods be set aside.

Discussion Circle

Have representatives of each group describe how the production period progressed. Be sure they include both the positive and negative aspects of their experiences. For those children who were dissatisfied, have the group analyze exactly what the source of the dissatisfaction was, i.e., no voice in the decisions, too much time taken up sharing materials, no one in one group would let a certain child use a red pen in exchange for the use of a green one, etc. Following are suggested questions for the teacher to bring out:

Teacher: How did the members of the collective ownership group feel about having a planner make all the decisions?

Possible economic responses: It saved time; many goods produced; planner didn't decide upon a wanted good; planner did not utilize all the resources.

Possible noneconomic responses: Planner only let his best friends do the best jobs; members disliked not taking part in the decision-making; some people had good ideas which were never heard; planner was dictatorial.

Teacher: How did the members of the private ownership groups solve the problem of what to produce?

Possible economic responses: Utilized own resources and skills; exchanged resources with each other to produce goods; the decisions were made by individuals; there was a variety of different goods.

Possible noneconomic responses: They were their own bosses; some individuals didn't have the resources they wanted; sharing was hard.

Follow-up Activities

1. The teacher will display the circular flow diagram found on page 11. Have the private ownership groups show where they fit into the diagram. The teacher will then explain the diagram to show what would follow the production period.

2. The children will be given a ditto sheet with the blank circular flow diagram and must fill in the proper labels.

3. Given a list of countries, the children will do research to find out whether they have an economy based more on private or more on collective ownership of resources. There are no wholly private nor wholly collective economies in the modern world. Following the discussion group the teacher will explain to the class that private ownership may result in a market economy while collective ownership results in a planned economy.

IV. Evaluation

Given the following list of characteristics the children will indicate with a P or a C whether each characteristic pertains to private or collective ownership.

P **1.** Joe decides to use his skill as an artist to paint greeting cards.

C **2.** Sam is elected leader. He tells the class that they will all work together to produce greeting cards.

P **3.** Sam is elected leader. He offers to buy some of Cathy's paper.

C **4.** Production is controlled by the government.

P **5.** Market economy.

P **6.** Circular flow diagram.

P **7.** Sam receives the income from his product.

C **8.** Luther gets part of the income from a product planners told him to make.

C **9.** Thelma had to spend her time making what the group decided to make even though she would rather have decided for herself.

P **10.** A number of different people each decide to produce a different good.

Supply and Demand: An Introductory Lesson*

I. Description of Concepts and Rationale

Definitions

demand	how much the buyer is willing to purchase at various prices per unit time
supply	how much the seller is willing to offer at various prices per unit time
equilibrium price	that price at which the quantity offered is identical to the quantity demanded
market price	see equilibrium price
law of demand	at higher prices less of a good will be demanded than at lower prices; or put another way, at lower prices more of a good will be demanded than at higher prices.
demand schedule	a chart expressing the quantity demanded of a good or service at various prices both for the individual and for the total group; an example of such a schedule is found in Example A.
supply schedule	a chart expressing the quantity supplied of a good or service at various prices both for the individual and for the total group

Rationale

The purpose of this lesson is to introduce the students to the Law of Supply and Demand and its relationship to price. This lesson will enable the students to gather information and construct demand and supply schedules and graphs and determine what the equilibrium price will be.

In order for children fully to understand market price, which is the main element in the market solution of what to produce, how to produce and for whom to produce, they must understand the factors of supply and demand which determine market price. Because children are potential producers and active consumers, they will find an understanding of supply and demand concepts extremely beneficial in comprehending what brings about price changes.

II. Objectives

1. The learner will be able to state that as the price goes down, the quantity demanded goes up and as the price goes up the quantity demanded goes down (the universal law of demand).
2. The learner will be able to construct a demand schedule by canvassing his fellow students.
3. The learner will be able to construct a graph depicting a demand curve when given a demand schedule.
4. The learner will be able to construct a supply schedule by determining his costs of production.
5. The learner will be able to construct a graph depicting a supply curve when given a supply schedule.
6. The learner will be able to graph and determine the equilibrium price when given a demand and supply schedule.

Note to Teachers: You will need to determine when to break this lesson into segments. It would be almost impossible to teach the entire lesson in one sitting. How many separate lessons will be necessary will be dependent on the age and ability of the individual class. We have divided the lesson into steps, and you as a teacher could break after any step or else combine a few steps and then break into two or more lessons.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The teacher will be in front of the room with a chalkboard. Children will be arranged so that they can easily see the board.

The materials used will include follow-up papers, rulers, pencils, graph paper in standard size, large graph paper for teacher demonstration, chalkboard, chalk and erasers.

Sequence of Activities and Procedures

1. Demand Schedule
2. Define Law of Demand
3. Demand Curve
4. Lower Valued Uses of Items
5. Supply Schedule
6. Supply Curve
7. Equilibrium Price

1. Demand Schedule

Teacher: "I have here a super, fantastic chocolate candy bar. It consists of marshmallows, nuts, and is covered with this absolutely heavenly chocolate. How many of these candy bars would you be willing to buy for $1.00?" Choose five children and depict the results on the board as shown in Example A, below. Be sure to use the same five children throughout the demand schedule. It is easier to start your chart with the largest amount and go down to the smallest. Go

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*The ideas from this lesson are a combination of those found in *Concepts Essential to a Basic Understanding of Economics*, by J. Barron and M. Hoff [Kourilsky] (South-Western Publishing Co., 1964) and Education 437A class notes by M. Kourilsky.

through steadily smaller increments and each time list both individual quantities demanded at each price and total figures as per Example A.

Example A

Price	*Individual Quantity Demanded*	*Total Quantity Demanded*
$1.00	1, 1, 3, 2, 4	11
$ .50	-, -, -, -, -	--
$ .25		
$ .15		
$ .10		
$ .05		
$ .01		

2. *Define Law of Demand*

After completing the demand schedule, have the children observe the data on the board and elicit from them some observation of what they can deduce from the data. Your goal is to lead them to express in their own words the Law of Demand: as the price increases the quantity demanded decreases. Once the students have expressed this in their own words, write on the board:

> The one characteristic that is common to all demands is that at higher prices less of the good will be demanded than at lower prices.

Introduce Follow-up Sheet I and have students complete it in class or as homework.

3. *Demand Curve*

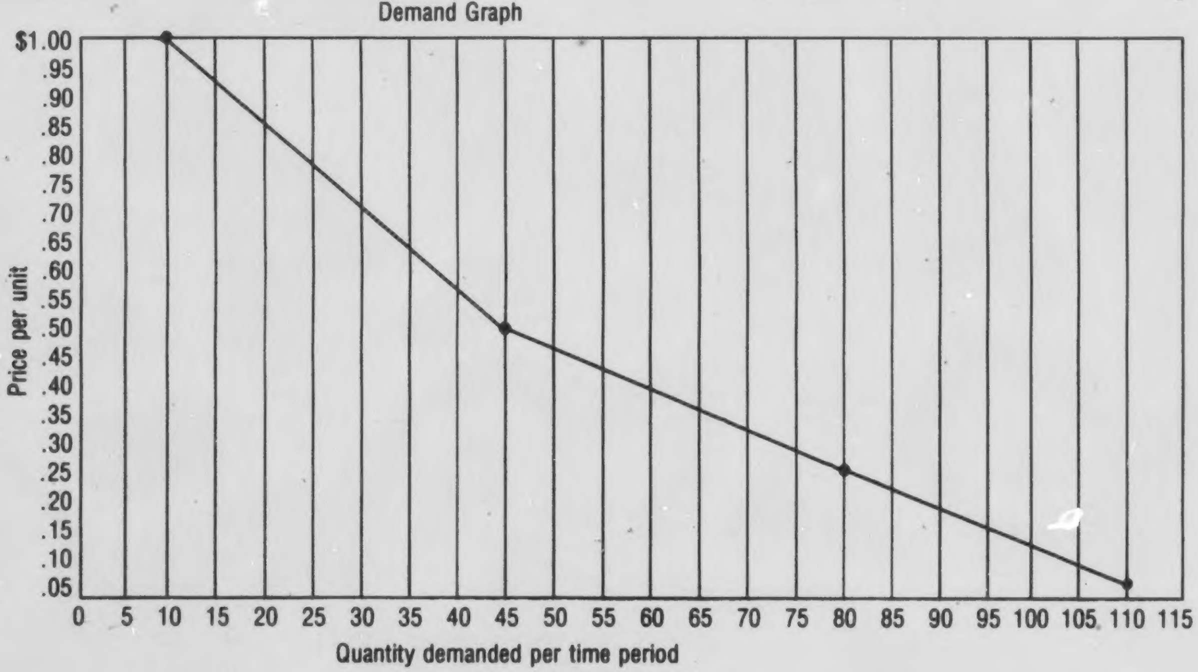
Teacher (bring out a large demonstration graph paper and a yard stick): "We are going to show this demand schedule on a graph. If the graph follows the law of demand, the curve should slope downward to the right. By tradition the vertical axis is always price per unit and the horizontal axis is quantity demanded per time period." See Example B for manner in which to do this.

After completing the demand graph, there are two possible ways to proceed. If there are questions regarding the validity of the Law of Demand, you may want to go directly into Step 4 and its lesson on the lower valued uses of items in order to clarify for the students that the Law of Demand always operates no matter how low or how high the price may be. If there are no questions regarding this matter at this time, then introduce Follow-up Sheet II, either as homework or as a class lesson. This follow-up is just a quick check to see if the students are comprehending the demand schedule and demand graph.

4. *Lower Valued Uses of Items*

A child may question the fact that at higher prices the quantity demanded will go down. As an example of this you can use "water." At $200 a gallon, how many people would wash their car? At $200 a gallon, what would you use water

Example B



Question for Students:	Expected responses:
What does this graph show you?	As the price goes up the quantity demanded goes down. or A demand curve slopes downward to the right.

for? How many people would increase their use of apple juice at $3 a gallon? Continue the discussion in this manner with the students using examples of their own.

The opposite of this, "At lower prices the quantity demanded will increase," can be discussed using as an example the uses of a fur coat. At a low enough price, say $5 a yard, you may want to polish your Mercedes Benz or carpet your bathroom with fur. As an extension of this, if desired, you may want to do a creative writing lesson on the following theme: "What if the price of ______ was ______?" Have the students fill in their own blanks and elaborate.

5. *Supply Schedule*

Teacher: "How many wallets would you be willing to make and sell in a week's time, if you could sell them at 25¢, 50¢, $1.00, $2.50 and $5.00?" Pick five children and follow the same process used in the demand schedule. Example C shows how you would put it on the chalk board.

Example C

Supply Schedule

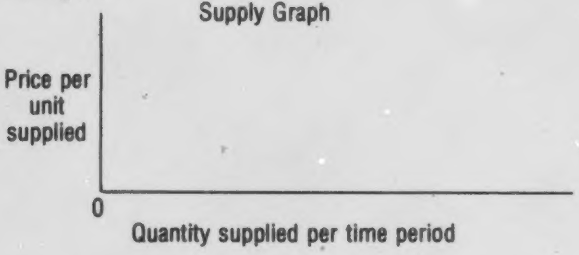
Price per unit quantity supplied
(start with low and go to higher prices.)

Person	25¢	50¢	$1.00	$2.50	$5.00
1					
2					
3					
4					
5					

6. *Supply Graph*

Draw from the children that, on the whole, people are willing to supply more at higher prices. Graph the above-given results with the class. See Example D. For follow-up to this lesson have the students make up a supply schedule. See Follow-up Sheet III for details.

Example D



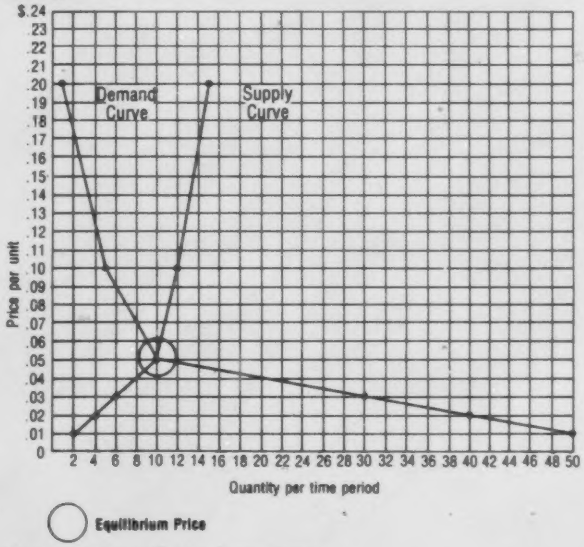
Remember to use equal units of measure, i.e., 0, 1, 2, 3 . . .
0, 5, 10, 15 . . .

7. *Equilibrium Price*

Teacher: "You have a cookie-manufacturing company and you want to know the best price at which you can sell your cookies. This price should maximize your profits. You want to sell at the highest price you can with as few cookies as possible unsold." (You need to put two schedules on the board.) "First, let's make a demand schedule of how many cookies five of you would be willing to buy at various prices." Figure the total quantity demanded at the various prices. Keep in mind that this graph is for a specific time period. Next make a supply schedule. You will need five children who will volunteer to give answers to the amount they are willing to supply during this time period at the various prices. After the class has completed the two schedules, bring out the large graph paper. Plot the demand schedule on the graph, then plot the supply schedule on the graph. The place on the graph where the demand curve crosses over the supply curve is the EQUILIBRIUM PRICE.

The equilibrium price (market price) takes the two conflicting sets of attitudes of suppliers or producers and those of consumers or demanders, and reconciles them by showing the price at which the quantity offered is identical to the quantity demanded. See Example E for a pictorial representation of this phenomenon.

Example E



Have the students work out several examples of this sort of graph. Introduce Follow-up Sheet IV and assign it as a classroom assignment or as homework.

Follow-up Activities

1. Homework Assignment: Students will survey parents and other community people in order to determine for what price to sell items at the school bazaar. There are many possibilities such as clay ash trays, food, apple dolls, yarn dolls, etc. Construct a supply and demand graph to determine what would be the market price (equilibrium price) to charge for their particular item.
2. Develop a teacher-independent learning center for reinforcing demand schedule, supply schedule, graphing, and equilibrium price concepts. Have individual worksheets similar to the follow-up worksheets found in the next section.

Follow-up I.

name______________________

Directions: Make a Demand Schedule using the following information:

1. You want to sell chocolate chip cookies in boxes of 20 cookies.
2. Pick five people and ask the following questions:

How many boxes of cookies would you buy at

Person	$1.00	$ .50	$ .25	$ .15	$ .10	$ .05	$ .01
1							
2							
3							
4							
5							
Total =							

If the price goes up, (the quantity demanded goes down).

Follow-Up II.

name ____________________

Demand Graph

Directions: Make a demand graph using the information given below. Use the graph paper supplied. These are the people who will buy Whimies, and at what price they will buy what number of Whimies.

Price per Unit

Name	$10	$9	$8	$7	$6	$5	$4	$3	$2	$1
Alex	0	0	0	0	0	0	0	1	1	2
Tim	0	1	1	1	1	1	2	2	3	4
Nancy	0	0	0	0	0	0	1	2	3	4
Ruby	0	0	0	1	1	1	2	4	5	6
Pedro	0	0	0	0	0	1	2	2	3	3
Totals										

Quantity Demanded per Time Period

Put your graph paper so that the long side is on the bottom.

Put "Price per Unit" up on the short side ("0") is at the bottom.

Put "Quantity Demanded per Time Period" along the bottom.

Add up totals on the demand schedule.

Put in dots on the graph for each price and total quantity demanded.

Connect the dots with a ruler

Follow-Up III.

name ____________________

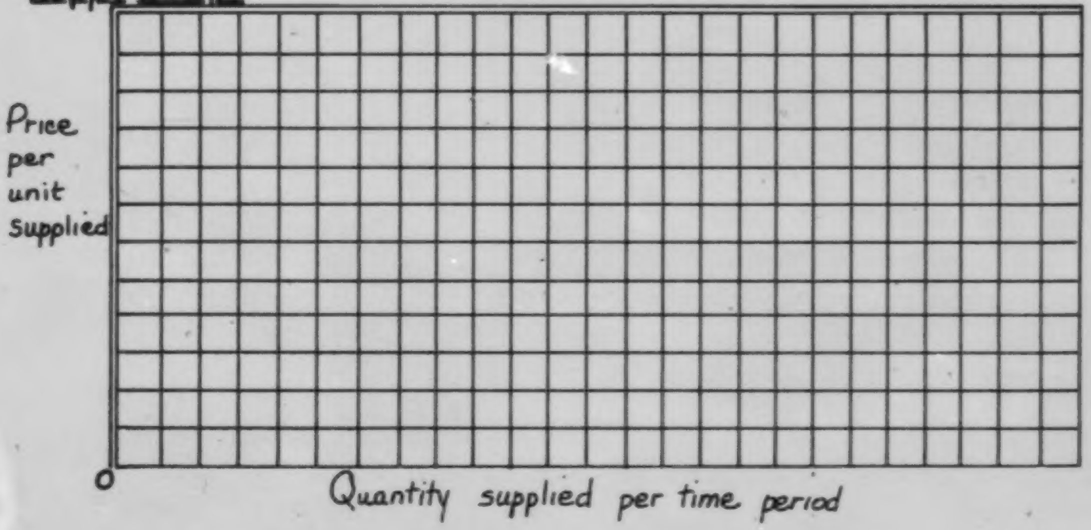
Directions:

A. Pick a product.
B. List 5 prices that might be charged to supply the product.
C. Canvass 5 classmates as to the quantity they are willing to supply at those 5 prices.
D. Graph your answers showing a supply curve.

Supply Schedule Price per Unit Quantity Supplied

Person	(lowest)				(highest)	
1						
2						
3						
4						
5						
Totals						

Suppy Graph



Quantity supplied per time period

Follow-Up IV.

name ____________________

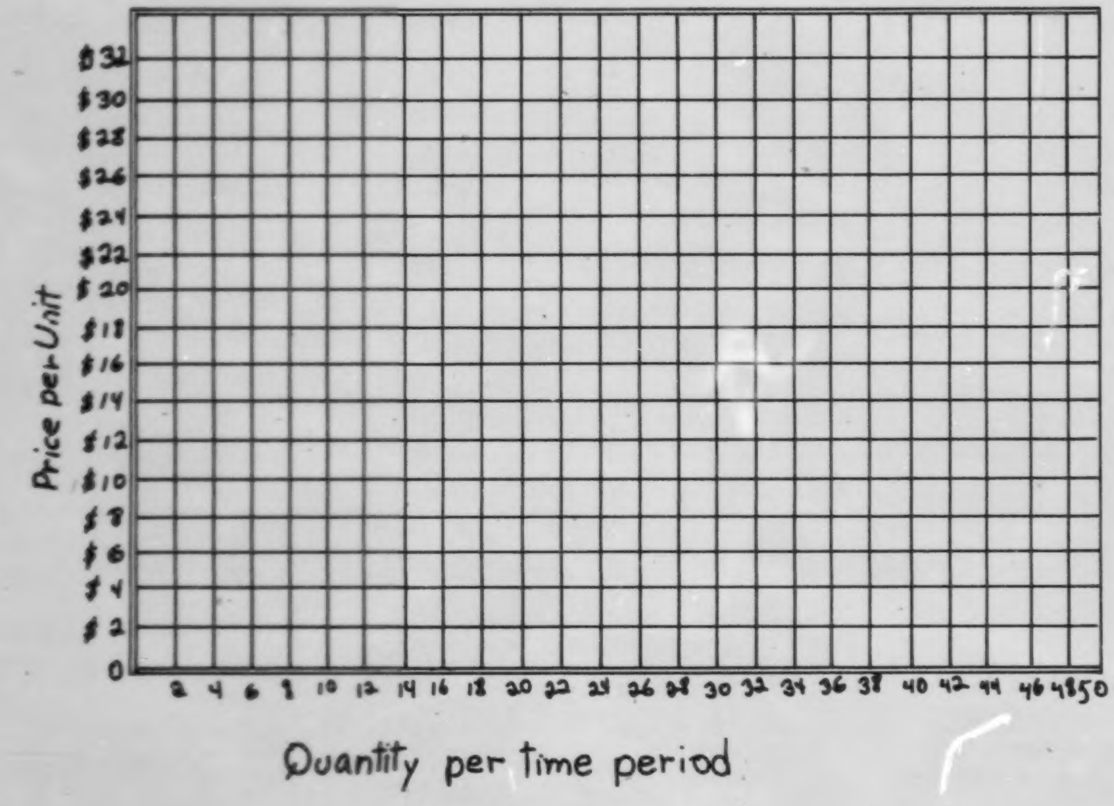
Directions:

A. Find the equilibrium price of the item below.

B. Graph the supply and demand curve marking the equilibrium price.

Ronnie's Rocket Ships: Quantity Demanded and Supplied per Total Time Period

Price/Unit	Quantity Demanded	Quan. Supplied	Total Revenue
$ 20	1	15	$20
$ 10	5	12	$50
$ 5	10	10	$50
$ 3	25	6	$75
$ 2	40	4	$80
$ 1	50	2	$50



IV. Evaluation

1. In your own words, express how the quantity demanded of a particular item is influenced by the price of the item at a particular time.

____

____

____

2. As the price goes up, the quantity demanded goes ______________________________.

3. As the price goes down, the quantity demanded goes ______________________________.

4. Canvass five of your fellow students and make a Demand Schedule showing the demand for chocolate chip cookies at 5¢ each, 10¢ each, 25¢ each, 50¢ each and 75¢ each. Use one of the sheets attached to show your work. Be sure to put labels on your work so that it is easy to know what kind of schedule you have worked out.

5. Take the data gathered from your Demand Schedule and using the attached graph paper, make a graph depicting the results of your Demand Schedule.

6. Canvass five of your fellow students and make a Supply Schedule showing how many cookies they would be willing to produce at the following prices: 5¢ each, 10¢, 25¢, 50¢, and 75¢. Emphasize the fact that these are giant cookies (four times as big as normal cookies and therefore costing more to produce). Use one of the attached blank pieces of paper to show your work. Be sure to label all parts of your work.

7. Take the data gathered from your Supply Schedule and use the second sheet of graph paper to depict your work.

8. Take the data gathered from both your Demand Schedule and your Supply Schedule, and depict the results of both schedules on one piece of graph paper, the third sheet. Determine what the equilibrium price for the cookies would be. Mark this clearly on your paper.

name________________________

I Demand Schedule.

name________________________

II Supply Schedule.

Have three sheets of GRAPH PAPER labeled: Supply Graph, Demand Graph, and Equilibrium Price.

Carnival Games: Economic Activities On Supply and Demand

I. Description of Concepts and Rationale

Often a thought-provoking film can become the focal point of an extended lesson. Such a film is utilized in this lesson to introduce concepts concerning the earning of income and the establishment of a business venture. However, the major thrust of the extended lesson is on demand and supply and their interaction, resulting in equilibrium or market price.

Young children sometimes have a hazy if not totally incorrect conception of the price mechanism. How are the prices of the goods and services they or their parents buy determined? In this lesson, children actually experiment with market surveys, supply schedules and the setting of price levels for goods and services found at a carnival.

II. Objectives

1. Students will be able to explain the concept of demand as wants backed by the ability to pay.
2. Students will be able to explain some of the factors which affect demand and the quantity demanded of a good or service.
3. Students will be able to verbalize the significance of a market survey (demand schedule) and its relationship to a demand curve. Students will be able to explain the relationship of a supply schedule to a supply curve. Students will be able to graph both of these types of curves from their respective schedules and will be able to locate equilibrium or market price on such a graph.
4. Students will be able to explain some of the factors which affect supply and the quantity supplied of a good or service.
5. Students will be able to explain the significance of equilibrium or market price.

III. Directions and Instructional Sequence

Room Arrangement and Materials

This lesson can be implemented in any classroom from one with a standard arrangement to one with a much more open structure. Assets to, although not requisites for, the lesson would be movable tables and chairs (rather than fixed desks) to enhance discussion and to allow the opening of actual carnival businesses, and access to outdoor space to allow more freedom and creativity in the operation of carnival activities.

Materials needed for implementation include the film "Treasure Hunt" (from the series Bread and Butterflies), chalkboard, assorted games and P.E. equipment, as well as some food items (should you and your class elect to provide these through some carnival business). Games, equipment and food can be brought from home by the children or bought/rented from you or from the school. An extremely useful tool for this lesson is the portable math chalkboard with permanent grid and axes. If one is unavailable, use peg board or other soft material to make your own permanent graphing board. Use golf tees on the peg board to mark points on a curve and use pins on other fiber boards. These points can then be joined with string or yarn to form the curve. If these alternatives are not appropriate for your class, make several grids on a roll of butcher paper to use when the class participates in graphing of curves. In any case, be sure to have some large-square graph paper for individual graphing of demand and supply curves.

Sequence of Activities and Procedures

1. Begin the lesson with a general discussion of MONEY: why people want it and how they get it. This discussion is introductory only and should be kept relatively short. At a later time you may wish to digress slightly for a values clarification lesson on the various ways of getting money and on the relative emotional and social values put on these ways in our culture and society.

2. Introduce the film "Treasure Hunt" by explaining that it is about three children who want to get enough money so that they can go to the carnival. Ask the class to think about the following questions:

- What do people use money for?
- What are some of the many jobs and businesses in the film?
- What does a person need in order to go into business?
- How does a businessperson decide how much to charge for his/her product?
- How does a customer decide how much of the product to buy?
- How does a businessperson decide how much of the product he/she is willing to sell?

Show the film "Treasure Hunt."

3. Follow the film by a discussion during which you may want to reshow some of the scenes to remind students of points which may be unclear (scenes showing businesspeople determining how much they are willing to supply, and scenes depicting changes in the selling price of products). Elicit preliminary answers to the questions posed before the film was shown and announce that the next several days will be partially devoted to finding more specific answers to some of the questions.

What do people want money for?
Possible answer: To buy things they want.

What are some of the many jobs and businesses in the film?
Possible answer: Carnival worker, ferris wheel worker, food sellers, dog washer, stationery printer, grocery carrier.

What does a person need in order to go into business?
Possible answer: An idea. (Prompt) What did the dog washer need to start? *Possible answer:* dogs, shampoo, water, comb, etc. (Prompt) What did the girl making stationery need? *Possible answer:* paper, ink, a potato.

How does a businessperson decide how much to charge for his/her product?

Possible answer: They guess. (Prompt) How did the stationery seller decide? She started by charging 75¢. What did she do then? *Possible answer:* She put $1.50 on her sign. (Prompt) Did anyone buy her product when she charged $1.50? What did she do then? *Possible answer:* She lowered her price to $1.00. (Prompt) She didn't lower it all the way back to 75¢, did she? *Possible answer:* No. People bought her product for $1.00

How does a customer decide how much of the product to buy?

Possible answer: How good it is, how much he likes it, and how much money he has. (Prompt) Did people buy more stationery for $1.00 than for $1.50? *Possible answer:* Yes. (Prompt) Why? Do people buy more if the price is lower? *Possible answer:* Yes.

How does the businessperson decide how much of the product he/she is willing to sell?

Possible answer: They sell enough to get the money they want. (Prompt) Remember the girl with the stationery? She borrowed money from her sister. Can she keep all the money she gets for her stationery? *Possible answer:* No. She has to pay her sister back.

4. The next day, announce that you are going into business. You have decided to have a carnival game business because the carnival games in the film yesterday looked so exciting. You have a problem, though. You don't know which kind of game would go over best. You are going to ask the class to help you to decide what kind of carnival game children would like best and would probably buy tickets for. At this point distribute bunches of math disks or counting sticks to each child. Each one should have approximately 30 disks or sticks.

Describe two games to the children. For example, one might be a bean bag tic-tac-toe toss with a prize to the one who gets three bean bags into a straight line. The player gets six chances (bean bags). Another might be a dart throw with balloons. The player gets three darts to throw and each balloon has a little prize inside. The player can keep the prize from each balloon he breaks. Another possibility would be the block toss in which blocks are piled into a pyramid shape and the player gets to throw a baseball three times to try and knock the blocks down. For each pyramid knocked down, the player gets a prize. When the games are described, ask the children to help you to decide which business you should open by voting for their favorite game. When the vote is in, elicit answers to these questions, "How will I know how many bean bag games (or block pyramids or balloons and darts) to have ready? How will I know how much to charge for each ticket to play my game? After all, I must make the bean bags and rent the tic-tac-toe boards (or buy balloons and prizes or buy blocks and rent baseballs). How will I know how many helpers to hire or how big a booth to build unless I know about how many children will be playing and how many times each one will play?"

Tell the students you have an idea. You will take something called a market survey. This is what most businesspeople do when they want to know how many products they can expect to sell. The students will use the counting disks like money. They may not spend more disks than they have, unless they arrange to borrow the disks from someone else who isn't spending them. Take the market survey as follows:

a. Be sure to emphasize the time period: for example, tomorrow during the play period after lunch.
b. Be sure to emphasize that the prices named are alternatives: for example, how many tickets would you buy if they were 20 disks per ticket? *Now,* how many tickets would you buy if they were 15 disks per ticket? These are two separate alternatives; that is, two different hypothetical situations. Be sure the children understand that the "slate is wiped clean" after each question; that is, how many tickets you would buy at 15 disks is not influenced by how many you said you would buy at the price of 20 disks.

Your market survey form should be on the chalk board, with responses recorded in the appropriate column. For the quantity demanded column, add the responses of all class members for each price. Begin with the highest price (somewhat over what each child has). Continue to go downward in price. DO NOT ask how many children would buy at each price. Ask how many each would buy at each price.

Price	Quantity Demanded	Total Revenue (price X quantity demanded)
25 Disks		
20 Disks		
15 Disks		
10 Disks		
5 Disks		
1 Disk		

Elicit answers as to *why* students would purchase the number of tickets they indicated. Possible answers should fall into three main categories:

(1) Tastes or preferences—Students *like* the particular game (or perhaps do not like it). You may provide a possibility which students are apt not to verbalize such as "Personally, I wouldn't buy more than one ticket even at a price of five disks because I wouldn't want everyone to see me miss the target more than once!"

(2) Income level—There are only a certain number of disks available to each student, even assuming that this game is the only thing on which to spend disks.

(3) View of the future—Tomorrow may be the only day the game is available, or a child may state that he hopes to win a prize for a sibling's upcoming birthday—or a child may feel that tomorrow will be his lucky day for winning prizes.

In addition, prices of complementary and substitute goods—it is difficult to imagine this arising since other goods cannot be bought with the disks.

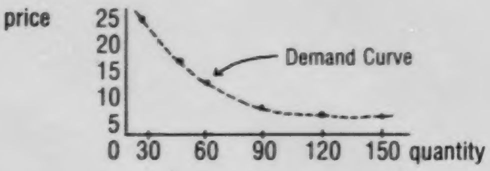
Have the children imagine a whole carnival where they can use disks. The quantity demanded of tickets for your game might be different (probably lower) at alternative prices if a similar or more exciting game were available. What if the children had to rent bean bags at another booth to use in playing your game? *(complements)* The price of bean bags would probably affect the quantity demanded at alternative prices of tickets for your game.

Ask the children to generalize about demand: As the price goes down, the quantity demanded tends to go up. People tend to buy more at lower prices. Why is this true? Elicit answers such as: At five disks each I could give a ticket to my brother, or At one disk per ticket I could give them to my friends, or At one disk each I could use some tickets to play the game and some to build paper houses! (These are called lower valued uses.)

After the market survey is taken, explain to the children that what is on the board is called a demand schedule. Ask them the difference between saying "How many tickets would you want?" and "How many tickets would you be willing to buy (at alternative prices)?" Their responses should group together to indicate that wanting is different from being willing/able to pay. Children participating in the market survey, for example, may have wanted to buy five tickets each at the price of 25 disks per ticket; however, they may not have had that many disks to spend and may have been unwilling or unable to secure a loan of disks from another child. With the information that wanting is different than being willing (able) to buy, define demand:

> **DEMAND is desire (wanting something) backed by the ability (or willingness) to pay money for it. Demand shows the quantity of a good or service people are willing to buy at alternative prices (per unit time).**

5. Tell the children that their participation in the survey has helped you very much—so much, in fact, that you can now make a graph showing how they feel about the game you are thinking of opening. Proceed to graph each point along the demand schedule arriving at a demand curve. Be sure to graph the first two yourself, explaining how you found the place to put your dot. Have individual children help you to find the next two points. Then have individuals try to find the last two points alone. Remember to explain that the horizontal axis is quantity and the vertical axis is price. The resultant "picture" or graph shows how many tickets the children would buy *tomorrow* for the game in question at alternative prices.



This whole curve represents demand (the way people would act at all different prices). Demand is not just one point on the curve.

6. Ask the children to use the information from the demand schedule and demand curve to help you to decide how much to charge for tickets to the game. Confusion may well reign for you still do not have enough information. Remind them of the costs the dog washer and stationery printer encountered in the film. Ask them to help you name your costs (examples for the bean bag toss follow).

Rent area on school playground from principal	20 disks
Rent tic-tac-toe board from friend in second grade	10
Beans, cloth and needle and thread for 9 bean bags	18
One helper to take tickets (1 hour of labor)	?
Prizes for winners	20
What else you could be doing with your time	?

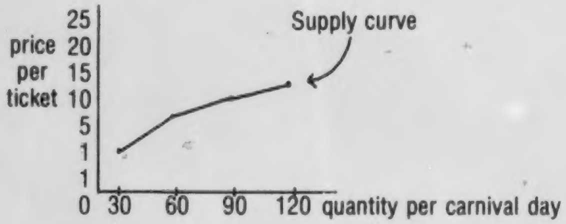
Ask the students to help you to decide how much to pay the helper by pretending that the disk are pennies. Make a supply schedule for their labor, in the same way a demand schedule for the product was arrived at. Ask how many minutes of the hour-long play period each would be willing to supply at alternative prices tomorrow:

Price	Quantity Supplied (minutes)
25 per minute	
20	
15	
10	
5	
1	

Elicit answers to indicate the general, though not universal law of supply. At higher prices, the quantity supplied tends to go up. At lower prices the quantity supplied tends to go down. Question: Why is this so? Translate answer such as, "But I could spend that time playing the game," into the idea of *opportunity cost:* that the cost is the next best alternative use of the time. Tell the children you must add a cost to your list: what else *you* could do with *your* time. Perhaps if there were other carnival games, you could work at one of them and earn a salary.

7. Along with the children, graph the supply curve that represents their willingness to supply labor.

8. Present a supply schedule for game tickets based on your costs, have the class plot the curve on the same diagram as the demand curve for tickets. Remember to explain that at greater quantities supplied, you may have to hire more workers, rent another tic-tac-toe board and make more bean bags, so the price must make this worth your while.



9. Going along the supply and demand curves, show the differences between the quantity demanded and the quantity supplied both above and below the market price. Ask what

would happen if you were only willing to supply 20 tickets at 1 disk per ticket and 600 tickets were demanded. Ask what would happen if you were willing to supply 100 tickets at 20 disks per ticket but they were only demanding 30 tickets at that price. Explain how to locate market (equilibrium) price.

Role-play with the children a carnival game for which the quantity demanded of tickets is greater than the quantity supplied at some price. Discuss how the customers felt who didn't get to play or who played less than they wanted to play. Now, role-play the reverse situation and discuss how the businessperson felt with all the left-over tickets. Role-play the situation at equilibrium price and discuss the feelings of the customers and businessperson.

Follow-up Activities

To have the children experience the real world meaning of these demand and supply concepts, divide the class into five groups, each group being a business. Ask each business to come up with an idea for a carnival booth and to list the things they would need to start their business. Explore the idea of putting on a mini-carnival after school or during lunch next week for two or three days. The children must decide if they can use mostly materials available in the classroom or for rental from home.

With permission of the school administration, proceed to plan for a mini-carnival at your school with children from all classes invited to buy tickets for games and with profits going to the PTA educational fund. Discuss where the children might get the capital (money to start) for their businesses to buy or rent things that are not school supplies. They may decide to ask the PTA for the backing since the PTA will be getting the profits. They may decide to become investors (perhaps 25¢ per share) themselves.

In the course of planning for the carnival, each group should (1) take a market survey of at least one-fourth of the other classes for their games, (2) translate these into demand curves by graphing them (each child may graph his or her own group's curve), (3) list costs and produce a supply schedule which they translate into a supply curve, and (4) plan for advertising (an important cost) of the entire carnival (perhaps a group effort) or their individual games.

IV. Evaluation

Although you will be informally evaluating your class throughout the lesson through discussion questions and answers, the following evaluation items are intended to measure actual attainment of the specified objectives. The items should be administered at the end of the entire lesson. Objective 3 should be evaluated in the follow-up discussion and through empirical verification during the graphing experience.

1. You are an economist writing a book about economics for children. Which one of these would you use as an example of what the word *demand* means in economics?

a. Demand is when your little brother wants some candy and says he will cry until Mother gives him some.
b. Demand is when the bully up the street says he will beat you up unless you give him your roller skates.
× c. Demand is when you want a new toy and are willing to take money out of your piggybank to buy it.
d. Demand is when you want a new toy and spend lots of time in front of the store window looking at the toy and wishing you had it.

2. Freddie is going to open a hot-dog stand at the school carnival. You are his business advisor. He asks you how he can tell how many hot dogs he will probably sell on the day of the carnival. What will you tell him to ask the other students to help him to answer his questions?

a. He should ask them if they like hot dogs.
× b. He should ask them how many hot dogs they would be willing to buy that day at different prices he might charge.
c. He should ask them if they like mustard or catsup on their hot dogs.
d. He should ask them how many hot dogs they would buy at the carnival.

3. Elizabeth and Eddie both run block toss games at the carnival. For 10¢ you can play at Elizabeth's game or at Eddie's game. At each game, you get three balls to knock down the blocks. At each game you get a chocolate bar for winning. But at Elizabeth's game the blocks are a lot closer to where the players stand. Why are most of the children *demanding* tickets to her game instead of for Eddie's game?

× a. They like Elizabeth's game better because it's easier to win so they would rather spend their money on her game.
b. They can't afford to buy tickets to Eddie's game.
c. Hot dogs at the carnival cost $1.00 each!
d. They think that Eddie's game booth will close soon.

4. Beth just opened up a new carnival game. If you throw the basketball through the hoop, you win a hot fudge sundae! Everyone wants to play Beth's new game, but there is very little *demand* for tickets to her game at the price she is charging. What do you think is the economic reason for this?

a. Because people don't believe that Beth will really give them a hot fudge sundae for just throwing a ball through the hoop. It's too easy!
b. Because people would rather think about the fudge than eat it.
× c. Because it costs $2.00 to play Beth's game and most of the people at the carnival don't have that much money with them.

5. Randy has decided to go into business making and selling cotton candy at the carnival. He has taken a market survey and knows how much people will buy at various prices. But he still doesn't know how much to charge. He decides to list his *costs* to decide how much cotton candy he is willing to supply at various prices. Which of the following things should he NOT consider?

a. How much he will pay Dan to help him.
b. How much the sugar will cost for the cotton candy.
c. How much it will cost to rent the cotton candy machine.
d. How much money he could make if he worked for Dorothy's game booth instead of making cotton candy.
× e. How much people said they'd buy for 10¢ per cotton candy stick.

6. Dorothy looks at her market survey for Dorothy's Donkey Game: At the price of 10¢ a turn, people are demanding 50 turns so she could make $5.00. Dorothy adds up her costs:

$1.00	rental of booth
.50	to make donkey cut-outs
.50	to rent baseballs
.50	to hire a helper
2.00	to buy prizes for winners
$4.50	

Dorothy could earn $.20 if she works at Randy's cotton candy booth. Using economics, would you tell Dorothy that she should go ahead with her Donkey Game business?

× a. Yes, because she would be making a profit by charging 10¢ a turn.
b. Yes, because even though she's losing money she'd have fun.
c. No, she'd make more money working for Randy.

7. At $.50 per hot dog, Hal is willing to supply 40 hot dogs at his booth during the carnival. At $.50 a hot dog, customers are demanding 40 hot dogs during the carnival. What is this price called in economics?

a. a profit
× b. equilibrium
c. too expensive
d. too cheap

8. Bess decides to charge 25¢ a rock at her paint-your-own-paperweight booth. She has 25 rocks and enough paint and brushes for 25 customers. But at 25¢ a rock, she only can sell 10 rocks. Her economic advisor says "You didn't find equilibrium." What does that mean?

a. It means her rocks weren't pretty enough.
× b. It means she didn't find the price where the quantity demanded and the quantity supplied were equal.
c. It means people don't like Bess.
d. It means no one had that much money.

Supply and Demand — Price Ceilings and Price Floors

I. Description of Concepts and Rationale

Definitions

supply curve	graphic representation of the amounts of a good or service suppliers are willing to furnish at different prices at a given time
demand curve	graphic representation of the amounts of a good or service consumers are willing to purchase at different prices at a given time
equilibrium price	that point on demand and supply curves for a given good or service at which demand and supply are equal—that price at which the quantity offered is equal to the quantity demanded
price ceiling	a legally imposed price limit which may be below the equilibrium (market) price
price floor	a legally imposed price limit which may be above the equilibrium (market) price
shortage	situation in which the quantity demanded exceeds the quantity supplied
surplus	situation in which the quantity supplied exceeds the quantity demanded

Rationale

The purpose of this lesson is to draw upon the previous lessons on demand, supply and equilibrium price to set a basis for understanding the effects of arbitrarily imposed prices on a market system. By experiencing the effects of an imposed price ceiling and an imposed price floor, the children will observe what happens to the market when it is thrown out of equilibrium.

In addition, the children will be able to reinforce the important skill of graphing by drawing a demand and supply curve showing these phenomena. The children may develop strong attitudes concerning the roles they wish government to play in their economy. In their own society, they now have the advantage of molding their government to suit their own interpretations of its function.

II. Objectives

1. The learners will be able to correctly identify, both verbally and graphically, situations involving price ceilings or price floors.
2. From information given to them, the learners will be able to plot supply and demand curves, identify the equilibrium price, plot a price *ceiling*, and identify the resulting *shortage*.
3. From information given to them the learners will be able to plot supply and demand curves, identify the equilibrium price, plot a *price floor* and identify the resulting *surplus*.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The room should be set up for children to exchange goods and services. For the discussion portion of the lesson, the following materials should be available: overhead projector, transparency with horizontal and vertical axes already drawn, grease pencil, enough graph paper for all the children. Bulletin boards graphically depicting price ceiling and price floor should be posted following the discussion.*

Sequence of Activities and Procedures

During a period of exchanging goods and services in a classroom economy, the teacher will identify a popular service (e.g., desk cleaning, game loans, etc.) on which to impose a price ceiling. The teacher will also identify a good that has a practical classroom use (e.g., paper folders, bookmarks, etc.) on which to impose a price floor. At the next class meeting the teacher announces that the price for the service will be X units (well below the market [equilibrium] price) and that no one can charge any higher. The price for the good will be Y units (well above the market price) and no one can charge a lower price. The class then commences to do business under these arbitrarily imposed regulations. Observers should be selected to record what happens at each of the regulated businesses. (A new set of observers should be selected for each of three sessions.)

Following these sessions a class meeting should be called, at which time a discussion will take place concerning the effects of the imposed price regulations. Observers will relate in detail what happened to each of the businesses which was affected. *Possible Observations:* Price ceiling—suppliers were unwilling to provide their services at this price. There were not enough people to provide the service, because at the lower price they had even more customers than before. The teacher will identify this situation as a price ceiling and draw a supply and demand curve to help to explain the effects. Price floor—at first the suppliers were happy because they were going to get a higher price; however, almost no customers came. The suppliers didn't sell nearly as many goods as before. They had a lot of goods left over. The teacher will identify this situation as a price floor, and draw a supply and demand curve to explain the situation.

Follow-up Activities

1. The teacher leads a class discussion in which the children suggest possible methods of reconciling the surpluses and the shortages.

2. Children will label price ceiling and price floor graphs with the correct terminology. (Give students sample graphs

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*Prepared bulletin boards on the subject are available in a *Mini-Society Implementation Kit* by Marilyn Kourilsky, Reality Systems Incorporated, P.O. Box 35188, Los Angeles, CA 90035.

to fill in and correctly answered graphs for checking.)

3. The children, as a group, using a transparency overhead projector, will interpret the effects on the class businesses via price ceiling-price floor graphs.

IV. Evaluation

1. The teacher will describe various price regulation situations; the children will identify them as the result of a price ceiling or of a price floor and tell whether a surplus or a shortage of the good or service exists.

2. Given data, the children will construct a price ceiling graph, displaying the resulting shortage.

3. Given data, the children will construct a price floor graph, displaying the resulting surplus.

4. Given data, the children will construct a graph depicting a supply and demand curve.

A Way of Amplifying the Concepts of a Planned Vs. A Market Economy

I. Description of Concepts and Rationale

The purpose of this lesson is to reemphasize how the Circular Flow Diagram operates and to help the student to clarify differences between a planned and market economy. At the extremes, a society may choose to honor one of two forms of ownership of its scarce resources—social ownership, or private ownership. Under private ownership of resources—a market economy—resources are privately owned and economic activity is largely directed by the interaction of supply and demand in the market. In a market economy or free enterprise system, the problems of what to produce, how to produce, and for whom to produce are solved through the operation of the market mechanism. The operation of a free enterprise system is modified, but not destroyed, by social interferences with its performance.

In most planned economies productive services are owned by the government, and economic activity is directed largely by central planning. In a planned economy the "what" and "how" decisions are made by the planners. The individual has some freedom, but only within structured alternatives. The annual plan is a physical blueprint for the use of productive resources, and in essence the plan is carried out by telling people what to do and by paying them for doing it. The results of an economic plan, however, are not always what the central planners had intended.

In the following game, the children are reminded of the basic characteristics of a market versus planned economy by classifying features that tend to be pervasive in one type of economy as compared to the other. The game is helping children to distinguish between characteristics likely to be found in "real-world" market economies and "real-world" planned economies, as opposed to the perfect market or planned economy models.

Many children within the next generation will be making the choice—either actively or tacitly—as to the type of economic system in which they want to live. It is therefore important for them to become acquainted with and have reinforced some of the basic differences that result from private versus collective ownership of resources.

II. Objectives

1. The learner will be able to explain verbally how the "what," "how," and "for whom" decisions are made in a primarily market economy.
2. The learner will be able to explain verbally how the "what," "how," and "for whom" decisions are made in a primarily planned economy.
3. The learner will be able to enumerate at least three differences between a primarily market and primarily planned economy.

III. Directions and Instructional Sequence

Room Arrangement and Materials

1. A corner of the room
2. A Circular Flow Diagram board
3. Question cards
4. Markers (2 to 6)
5. One die

Sequence of Activities and Procedures

1. Two to six players may play.
2. Each player selects a marker.
3. The four sets of cards are placed on the appropriate spaces.
4. Each player throws a die. The highest number goes first and the rest of the players take turns clockwise around the board.
5. All students will start in the consumer square and will move along the Circular Flow Game Board answering questions whenever landing on one of the four question areas. These areas are in the *centers* of *$ Votes Area, Goods and Services Area, Resources Area,* and *Income Area.*
6. Moves along the game board will be determined by the throw of a die.
7. Students will receive an automatic five points whenever they land on either the Producer or Consumer Squares after the initial start of the game.
8. There will be four kinds of questions dealing with four different areas where decisions are made in all economies. There are three basic decisions: (a) What to produce, (b) How to produce (which involves what resources to use and in what manner they are to be used), and (c) For whom to produce (which involves who will receive the output from this production). Another category involves how people decide to spend their "$ Votes," which will also vary according to the kind of economy.
9. The students will choose one of three possible answers: (a) Primarily a Market Economy, (b) Primarily a Planned Economy, or (c) Either Planned or Market Economy.
10. Questions will vary in difficulty and accordingly in value, from 10 to 25 points per question.
11. Put aside any cards which are missed for further class discussion at the end of the game period.
12. The winner of the game will be the first person to score 300 points. For a faster game, the total winning score can be lowered.

Questions for "What" Goods and Services are Produced

You are an individual with many skills. You can choose among alternatives for a job, but you need some special training. You must apply to the state to get that training. You are probably living in:

a. a Primarily Market Economy
b. a Primarily Planned Economy
c. either a Market or Planned Economy

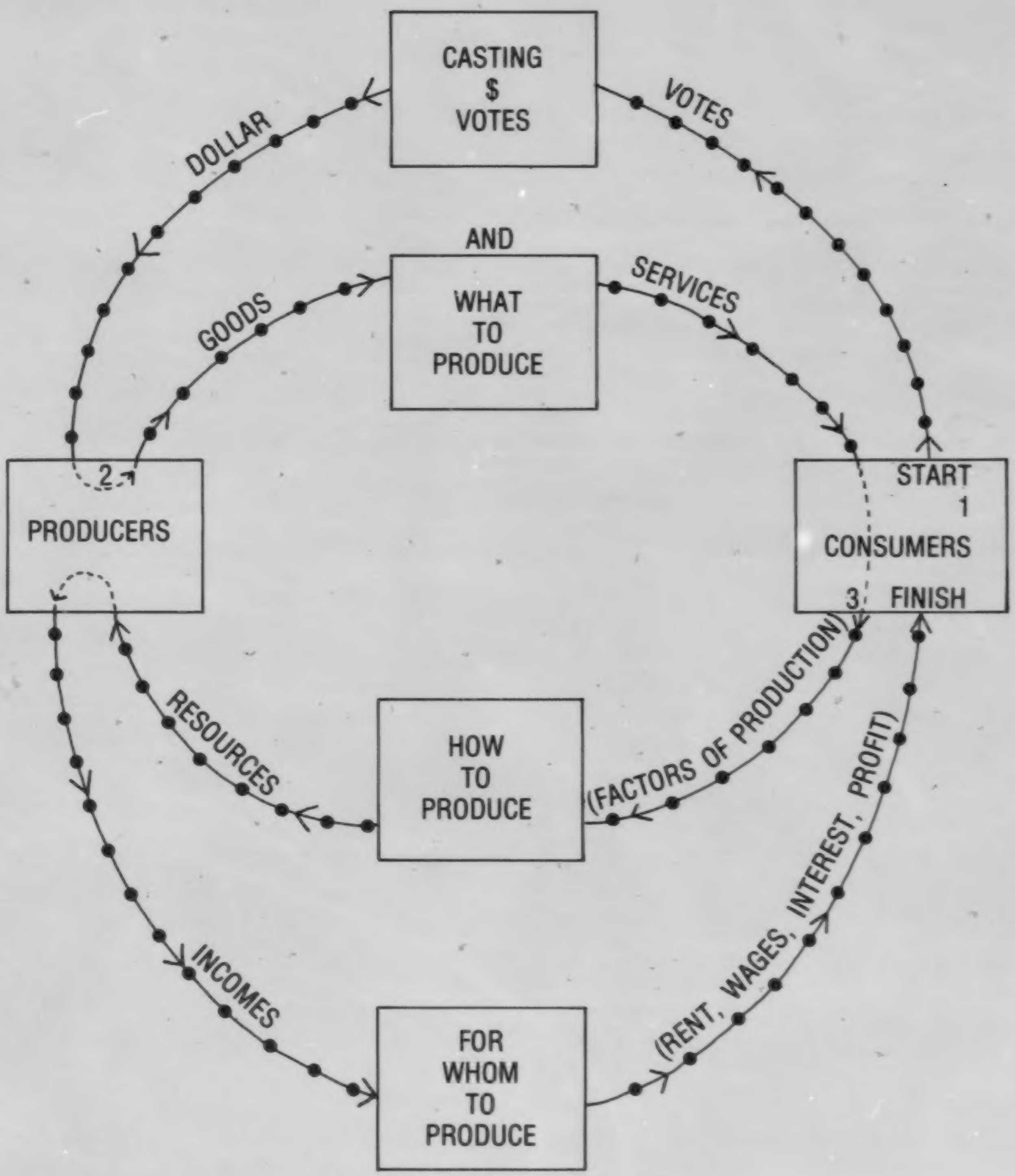
Answer: b. Value, 15 points

You are given $500 to spend on clothes. An expert decides what kind of clothes are most appropriate for you to wear. You are probably living in a:

Answer: c. Value, 20 points.

You have earned $500, which you decide to spend on

Economy Gameboard


CASTING
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FOR
WHOM
TO
PRODUCE

clothes. You go to many stores and choose all the different kinds of fashion clothes that you feel are most appropriate for you to wear. You are probably living in a:
Answer: a. Value, 20 points.

All stores turn in reports stating how many pairs of brown shoes, orange sweaters, red jackets, and brown pants, etc., they will need for the next two years. All industries are told what they will produce and how to allot the resources. You are probably living in a:
Answer: b. Value, 15 points.

A committee decides for a country that the number of heavy black jackets produced for the next year will be one million. They will each have a rabbit fur lining and will sell for $25.00. You are probably in a:
Answer: b. Value, 10 points.

Since the sale of WACKY PACKS has decreased by 25 percent over the last month, the price of WACKY PACKS has been lowered. This is an example of what might happen in a:
Answer: a. Value, 10 points.

The amount of corn produced in the year 1975 exceeded the demand for this product. The government bought the extra corn and is keeping it in storage for a later period. This might occur in a:
Answer: c. Value, 25 points.

In which economic system would you have considerable freedom to move to another job and spend your income on what is available but find that how you spend this income would not determine what is produced?
Answer: b. Value, 25 points.

Questions for "How" to Produce

The products used by the CLEAN WHITE TOOTHBRUSH FACTORY in manufacturing toothbrushes for the first third of 1975 were changed to plastic bristles and medium-sized plastic handles in order to lower costs and increase profits. This would probably happen in:

a. a Primarily Market Economy
b. a Primarily Planned Economy
c. either a Market or Planned Economy

Answer: a. Value, 10 points.

Farmers go to a special state committee and insist that there is a need to change to plastic bristles for toothbrushes since there is a shortage of feed for the hogs and they cannot provide the needed number of bristles for production. This is probably:
Answer: b. Value, 20 points.

Workers slow down production of "needed" wheat because they feel that the state is not paying enough for their labor. This is probably:
Answer: b. Value, 25 points.

Industries draw up a five-year plan of production, listing all the resources which they feel they will use. The lists are turned in to the higher-ups, who determine how these "needed" resources will be allocated to the different industries. This is probably a:
Answer: b. Value, 20 points.

You are a farmer. You own a fairly large plot of land. You want to hire labor to help you to work on your farm. You find this is illegal. You are probably living in a:
Answer: b. Value, 10 points.

You are opening a fish market. You must decide what kind of process you will use to catch the fish. You also must decide how you will store the fish and if you want to hire someone to help you. You have many decisions to make. You are probably living in a:
Answer: a. Value, 10 points.

You use your grain to produce liquor, but may be morally against drinking. Your main goal is the profit motive. In what kind of system do you probably live?
Answer: a. Value, 20 points.

You are interested in getting the greatest output for a given input. You are probably living in what kind of economy?
Answer: c. Value, 20 points.

Questions About "For Whom," or Who Gets the Goodies

Workers for the CLEAN WHITE TOOTHBRUSH COMPANY, a profit-making firm, all received an added bonus for the first half of 1978 because of the increased sales. In what type of economy would this most likely occur?

a. Primarily Market Economy
b. Primarily Planned Economy
c. Either a Market or a Planned Economy

Answer: a. Value, 10 points.

Playground directors received their pay from the local city government. This is an example of what type of economy?
Answer: c. Value, 15 points.

The government decided to give all employees of the HOG BRISTLE TOOTHBRUSH COMPANY a $50 bonus for the month of December. This happened in a:
Answer: b. Value, 20 points.

Congress decides to set a tax on all sales of luxury goods. This tax is then redistributed to the economy in various ways such as financing parks and schools. This most likely would occur in a:
Answer: a. Value, 10 points.

The state provides employment or training for all its citizens, and promises that no one will ever go hungry or do without medical help. This would most likely happen in a:
Answer: b. Value, 15 points.

In which system would you be most likely to find labor unions having a powerful influence on wages?
Answer: a. Value, 20 points.

In which system would you be more likely to have almost complete freedom on where to work, where to live, how to spend your money, and whether to go into business for yourself?
Answer: a. Value, 20 points.

Questions for Casting $ Votes

Mr. Brown, one of the factory workers of the Clean White Toothbrush Factory, put a deposit on a new RACER DACER Sports Car with a bonus he earned for increased sales for the first third of the year. He probably lives in a:

a. Primarily Market Economy
b. Primarily Planned Economy
c. Either a Market or a Planned Economy

Answer: a. Value, 10 points.

You go to the store and all that is available are blue tennis shoes. You buy these because you need shoes. Each year there is only one kind of shoes. You probably live in a:

Answer: b. Value, 10 points.

You have decided to use part of your income to purchase a new puppy. You probably live in what kind of an economy?

Answer: c. Value, 20 points.

You go to the store and buy a red jacket, orange sweater, brown pants, and brown shoes because that is what is available. You do not have other choices in the store. This is most likely an example of a:

Answer: b. Value, 10 points.

You do like to go shopping and you like to own many kinds of consumer goods. There are also many consumer goods from which to choose. You are probably living in:

Answer: a. Value, 15 points.

Follow-up Activities

Have the children select a decision that they are used to having the market make (e.g., production of toothbrushes); then have them act as planners in a role-playing situation and go through the steps with accompanying problems in making that decision.

IV. Evaluation

1. In a short paragraph, state some of the primary differences involved in a Planned vs. a Market Economy. What kind of decisions must be made and who makes them?

2. Draw a circular flow diagram showing what decisions are made in a Market Economy and how this diagram helps to explain them.

3. In a short paragraph describe how the What, How, and For Whom decisions are made in a primarily Planned Economy.

Barter, Money Exchange, and Money

I. Description of Concepts and Rationale

Definitions

barter	the direct exchange of goods and services
divisibility of a good or service	refers to the ability to exchange fractions of a good or service
exchange rate	refers to how much of one good or service is worth how much of a second good or service in direct exchange
money	anything which is generally accepted in exchange for goods and services
money exchange	the exchange of goods and services for money
price	usually the amount of money desired in exchange for a good or service
reciprocal exchange	an exchange in which each party desires the other's good or service being offered
specialization	concentrating one's efforts in the production of a very limited variety of goods and/or services

Rationale

The purpose of this lesson is to have the children learn about the economic concepts of *barter, money exchange*, and *money*. By actively participating in a barter system, children will discover some of the inherent limitations of direct exchange of goods and services (barter): the amount of time required to find a mutually beneficial exchange, the limited divisibility of goods and services; the lack of a common frame of reference for establishing the values of dissimilar goods and services; and the inhibiting effect on specialization or production.

When discussing money exchange, the children will examine how some of these limitations are reduced or eliminated. The appeal of money exchange over barter will be highlighted by an assigned field experience. The children will explore the general concept of *money* in an organized follow-up discussion.

Certain noneconomic learnings and social interactions will also develop from these lessons. The children may have to deal with various styles of bartering, positive or negative feelings emerging from the exchange experience, and the frustrations of setting mutually agreeable values and rates of exchange.

II. Objectives

1. The learners will be able to list or discuss orally at least three of the following problems associated with a barter system:
   - The inhibiting effect on specialization
   - Difficulty in finding a reciprocal trade or exchange
   - No common frame of reference for valuing items for exchange
   - Time wasted in searching for exchanges
   - Time wasted in finding an acceptable rate of exchange
   - The perishability of some exchange items (e.g., foods melting or going stale)
   - The necessity for "chains" of exchanges to obtain certain items
   - The limited divisibility of goods and services
2. The learner will be able to list or discuss in his/her own words at least three of the following ways in which a money exchange system facilitates the production and exchange of goods and services:
   - Reduces the average time spent on finding and transacting exchanges
   - Facilitates the exchange of dissimilar and indivisible goods and services
   - Facilitates the establishment of exchange rates and the comparison of values of dissimilar goods and services
   - Promotes more efficient production through specialization
3. On a test consisting of ten descriptive statements, the learner will be able to classify correctly at least six of them as being more descriptive of a market economy than of a barter economy.
4. The learner will be able to define the concept of money as anything that is generally accepted in exchange for goods and services.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The teacher requests that each (participating) student bring to the classroom five identical objects to be used for trading. The maximum total value (U.S. dollars) of the five objects should be prespecified by the teacher at 50 cents or less, depending on the socioeconomic level of the class. An alternative would be for the teacher to provide five such objects for each (participating) member of the class. Examples of such objects might include five wrapped candies, five sticks of gum, five marbles, five cookies, five baseball cards, five crayons, five pencils, five erasers, etc.

The room is arranged to enable free student movement and physical exchange of goods.

Sequence of Activities and Procedures

Teacher: "Let's make a list of what everybody* has to trade." (Teacher makes a list on the blackboard.) "Trading things, or the direct exchange of goods, is called *barter*." (Teacher writes BARTER on the board.) "Today we are all going to get a chance to trade or barter things we already have for other things we want. For example, suppose Johnny has some cookies and wants a baseball card. He can go to Susie and try to trade her some cookies for a card. You all get to work out the trades yourselves—like how many cookies for how many cards. You also will have to figure out what to do if you want something but you cannot trade what you have for it. For example, Susie might not want any cookies. What would you do then, Johnny?" (Teacher tries to elicit the idea of a sequence or *chain* of trades from the class.)

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*The teacher can make appropriate adjustments if not everybody is participating.

"Before we start, I want each of you to think hard and then make a list of three things that other people have brought (remind them of the list on the board) that you want." (Each child makes a list.) "After we are all finished bartering, we will look at our lists again and see how well we did—if we were able to get most of the things we wanted by bartering."

The teacher then tells the students they may begin bartering but must stop after a predetermined amount of time, e.g., five to fifteen minutes. The teacher should agree with the class on an audible signal which will terminate the barter period. After the barter period ends, all exchanging stops, and the students proceed with the discussion circle below.

The teacher may want to give the class some guidelines as to appropriate and inappropriate behavior during the barter period. For example, these guidelines might include instructions that exchanges be made willingly (e.g., without physical force), observing safety and noise factors.

Discussion circle. Have a few children describe exactly what happened to them during the barter period. They should describe what they had, with whom they traded, and the amounts traded.

Teacher: "Were there any problems experienced in the bartering situation? Were you all able to get what you wanted by trading?" (Children can check their lists.)

Possible economic responses: Difficulty in finding a trade; someone wanting your item and you not wanting theirs; necessity of bartering through a chain to get what you want (e.g., A wants B's goods, B wants C's goods, A exchanges with C to give to B, etc); difficulty in setting exchange rates between dissimilar and indivisible items (e.g., how many marbles for how many baseball cards); entire time could be spent searching for an exchange.

Possible noneconomic responses: Variation in bartering styles (e.g., aggressive vs. timid); a sense of frustration or anger at not finding an exchange; happiness or unhappiness with the social interaction (e.g., not taking turns, yelling, etc.).

Teacher: "Does anyone have any suggestions as to how we might be able to make it easier to exchange things we have for things we want?" The teacher spurs the discussion until the idea of a *money-exchange system* emerges. If necessary, the teacher asks the children how our economy manages the exchange of goods and services. How do they (the children) usually get something they want at a store? What did they (or, more realistically, their parents) have to "trade" for the money they used to buy things? Examples: time, knowledge, labor, goods (can cite specific professions—doctor, lawyer, mechanic, shoestore owner).

Teacher: "How do you think a money exchange system can help to reduce some of the problems of the barter system which you experienced today?"

Possible responses (with some prompting): Less time looking for an exchange since it need not be reciprocal; easier to establish exchange rates—goods and services can be "divided" via the money prices established for them; easier to establish relative value of dissimilar items by their prices; easier to carry around money than some goods.

The teacher can also emphasize that a money exchange allows people to *specialize* in the production of very few items or even just one specialty item (like skis). In a barter exchange, people can only afford to produce items they will be able to trade directly for what they want.

Follow-up Activities

Money. The teacher leads a class discussion directed toward defining the economic concept of money. The following kinds of questions should be addressed:

1. Is United States currency valuable by itself; i.e., can you do anything with money except save it or buy goods and services?

2. If everybody used blue money instead of green money, would our money-exchange system still work? What if everybody used certain special sea shells? Can people use anything they decide to for money, if it is convenient?

The issues thus raised should then lead to the following definition of money:

Definition. Money is anything or any combination of things which is commonly used and generally accepted as payment for goods and services.

Field Experiment. The teacher asks some or all of her students to go to a store with a one-dollar bill and some other items worth a dollar (but not a dollar bill). Each student then tries to purchase something worth one dollar but says to the storekeeper: "I can pay you with this dollar bill or with this other item worth one dollar. Which one do you want?" Once the storekeeper has made his/her choice, the student should ask the reason for that choice.

The teacher may subsequently raise the following questions:

- What choice did each shopkeeper make?
- What reasons did they give for their choices? It should be emphasized that the reason for most store owners choosing money was their belief or faith that other individuals would be more likely to accept the money than the product in exchange for the possible goods and services desired by the storekeeper.

IV. Evaluation

You probably noticed some problems which go along with a barter system. For each of the following, describe the barter problem:

1. George has a rocking chair and wants to trade for a cow. Sue has a cow but doesn't want to trade for George's rocking chair. Phil wants George's rocking chair but doesn't have a cow to trade for it.

Answer: There is a difficulty in finding trading partners each of whom has what the other wants.

2. Al has a horse and John has a lamb. They want to trade but Al says his horse is worth *two* lambs. John doesn't have another lamb and he doesn't want half a horse!

Answer: No common denominator value for exchange (limited divisibility of goods).

3. At the beginning of recess Linda started to go around school to find someone with a Frisbee to trade for her colored pencil set. She found several people with Frisbees but none who wanted her pencils in exchange. Finally at the end of recess she found someone who wanted to trade. She didn't get to play at all!

Answer: Time spent in searching for exchange.

4. Joan wants to trade half her candy bar for jump-rope lessons. Several good rope-jumpers wanted to give her lessons but each one wanted the *whole* candy bar. Joan felt that a lesson was only worth half a candy bar and finally she found Susie who was willing to trade for only half the candy.

Answer: Time spent in finding an acceptable exchange rate.

5. Gina has an ice-cream cone for trade. She talks with many other children about trading and finally decides to trade the ice-cream cone for Mark's peanut butter candy. But then Mark says, "No, your ice cream has already melted!"

Answer: Time limit on the usefulness (perishability) or quality of some goods.

6. Betty wants an autographed picture of the basketball team and John has one but he doesn't want to trade for anything Betty has. He wants a baseball bat. So Betty trades her hair ribbon for Sue's pencil case, the pencil case for Dan's model car, and the model car for Ted's baseball bat. *Now* she can trade with John.

Answer: Involvement in a chain of exchanges to obtain a desired good.

7. Farmer Jones can trade his two sacks of flour (each of which is worth $5) for one bushel of Farmer Smith's corn (which is worth $10). If he goes to the store he can get $10 for the sacks of flour instead. He wants your help with his economics. Which might he prefer to do—(a) go to the store and get the $10, or (b) go to Farmer Smith and get one bushel of corn? Why?

Answer: (a). With the $10, he can save time and purchase different items (assuming he wants something besides one bushel of corn, or that it is less time consuming to go to the store rather than to Smith's).

8. In the town of Corngrowers everything has many prices. When you go into the corner store the signs, which change every day, say things like: 2 pigs = 1 cow, and 6 ears of corn = 1 yard of cloth. When you want to trade something, you must ask the owner, "How many eggs does this cost?" It takes a long time to buy something! How would a money system help the town?

Answer: It would enable them to price items in a common unit of value, and save time since you need not find a reciprocal trade.

9. You have made ten really beautiful bean bags. You aren't sure exactly what you want to trade for. Would you rather: (a) sell your bean bags in a money economy and go shopping with money in your pocket, or (b) look for trades in a barter economy? Explain the reason for your choice.

Answer: You can save more time and have more choices if goods and services are expressed in terms of money values (prices).

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Read each statement and decide whether it best describes a money exchange system (money economy) or a barter system (barter economy). Then put a "B" for barter economy or an "M" for money economy in the space provided.

10. (B) A chicken is worth one apple or four nails or six cookies.

11. (M) Storekeepers use cash registers.

12. (M) People use wallets.

13. (B) Buying most things takes a lot of time for everybody in the society.

14. (M) You can earn a living giving dogs haircuts.

15. (M) A storekeeper can stamp a number on a milk carton which is its price before he ever sees the buyer who wants it.

16. (B) If you wanted to sell a bale of hay, you would have to carry it with you.

17. (B) Most people produce more than one kind of thing.

18. (M) It's easier to buy and sell.

19. (M) You can find a nice, small town in Switzerland where almost everybody makes watches.

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In the barter economy of Tradesville, the following prices were in effect today:

Bobby paid 2 yo-yos for 1 rubber spider.
Diane paid 1 cookie for 3 yo-yos.
Brian paid 1 bread doll for 1 yo-yo.

Tradesville citizens want your help in creating a money system. They will call their currenty Tradesbills, and each one will be worth one toy yo-yo. Can you help them price their other goods for sale?

20. (1) One bread doll costs how many Tradesbills?

21. (2) One rubber spider costs how many Tradesbills?

22. (3) One cookie costs how many Tradesbills?

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23. In far-away Africa there lives a tribe called the Nuer. Cows are very important to them. If you want to buy some beads, you pay a certain number of cows. Nuer men even use cows to buy a wife. Are cows money to the Nuer? (Yes or No.) Why?

Answer: Yes—commonly accepted in exchange for goods and services.

24. In some places certain seashells are used for money. How can that be? Anyone can go to the beach and pick up a seashell! Why can shells be used for money?

Answer: Anything which is commonly accepted in exchange for goods and services is money.

25. In the United States, much of our money is just made of paper (dollar bills, five-dollar bills, etc.). Why are dollar bills money and notebook paper is not money?

Answer: Because people will accept dollar bills in exchange for goods and services and they will not accept notebook paper.

A Way of Amplifying the Concept of Money

I. Description of Concepts and Rationale

For most students, the presence of "money"—coin and currency*—in our economy is an accepted phenomenon. In order to demonstrate to the learner the *function* of money in our society, the lesson will focus on two main areas: (1) Barter vs. Money Economy, and (2) Intrinsic vs. Extrinsic Value of Money.

First, the moneyless, or barter, economy will be observed through role-playing and group discussion. The student will discover the major problems inherent in a barter economy: use of resources in search for a trade, and lack of a standard measure of value. At the same time, the advantages of a money economy (increased specialization, a way of securing more time for production or leisure, etc.) can be explored. Next, through Socratic Dialogue with the students, the teacher will develop the conclusion that money (specifically "paper money") has no intrinsic value. The "value" of the currency is sustained only by the faith of the person accepting it in exchange for goods and services that (s)he can *also* use this as a medium of exchange.

II. Objectives

1. The student will be able to state on an essay-type exam that money only has value if it is commonly (generally) accepted in exchange for goods and services.
2. On a multiple-choice test item, the student will be able to identify as one of the benefits of money that it allows for specialization in production.
3. On a question concerning the application of the concept of money, the student will be able to list two ways in which money is useful within our society; i.e., (1) allows for specialization, and (2) allows for increased production because resources are used in producing rather than trade.
4. In a group discussion utilizing the problem-solving approach, the students will discern that money can be anything as long as it is generally accepted by others as a medium of exchange for goods and services.
5. The student will be able to define verbally the following words: (a) specialization; (b) value of money; (c) barter; (d) currency; (e) intrinsic (optional); and (f) extrinsic (optional)

III. Directions and Instructional Sequence

Room Arrangement and Materials

The room will be arranged so that the students can sit in a circle where all can see each other. The problem will then be introduced to the class and a group discussion will follow.

There will also need to be an area set aside for a learning center. This will require an area for the worksheets to be easily available and also a space for a bulletin board which will be put up to give the students information on how to solve the worksheets.

Sequence of Activities and Procedures

1. Present problem.
2. Class discussion: (a) First large-group discussion; (b) Role-play an example of how the problem could occur; (c) Debrief the role-playing situation and draw generalizations.
3. Set up and introduce learning center worksheets.
4. After the center has been in operation for a week, bring the class together for another discussion. Go over the various ways different students worked out the problems presented in the worksheets.
5. Review and draw generalizations.
6. Test of information presented in the lesson. Questions will be based on the objectives as stated.

1. Present Problem

Teacher: "We live in a country where people use money to buy whatever they want and can afford. Suppose Merlin the Magician cast a spell on the whole country—he made all our money disappear. Now there were no pennies, no nickels, no dimes or quarters, and no dollars either! There was no money. What do you think would happen?" Allow time for students to think of how they would deal with this situation in their daily lives. How would they get food for dinner? How would they get the clothes they want? etc.

After the students have described a trading economy, label and introduce the new concept of "barter economy."

2. Role-Play

Have a group of three children play the parts of a grocery-store owner and two different customers. The situation is as stated above. The first customer wants milk for her children and the grocery-store owner refuses to accept her home-made money. What should the customer do? What should the grocery-store owner do? The second customer steps in and also brings in his idea of what can be done in this situation. Have the students who are in the audience observe one of the three people. If the situation seems to slow down, you may want to draw in an alter-ego for the various participants in the role-playing group. After the situation is played out, have the group debrief the situation. Discuss the problems involved when there is no easy means of exchange. How long do you think our country could go on without some monetary system?, etc. What are the main purposes of a monetary system? What is the value of money?

3. Socratic Dialogue

a. What are some of the things we use for money? (coins, dollars)
b. What are our dollars made out of? (paper)
c. I could make a dollar out of paper too. What's the difference? (Your money is no good.)
d. Well, why? After all, mine is prettier. (No one will accept it.)
e. Do you mean that if I took this dollar of my own to the store they wouldn't let me buy groceries with it? (no)

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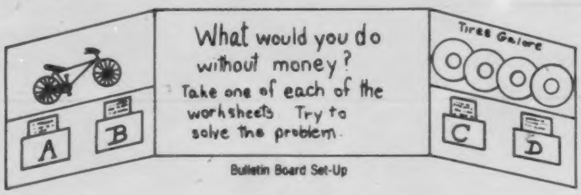
*For the higher grades you may want to introduce "checkbook" money, but technically it is wrong to classify checks as money. It is the checking *account* that is defined as money, not the check itself.

f. Why will the clerk accept a regular dollar and not mine?

This dialogue should continue until the student discerns that the value of a dollar is manifested by the faith of its holders that it will be accepted for goods and services. The dollar itself has no intrinsic value above that of the paper and ink.

4. Learning Center


What would you do without money?
Take one of each of the worksheets. Try to solve the problem.
Tires Galore
A
B
C
D

Bulletin Board Set-Up

Examples of various worksheets, A - D

A. WHAT WOULD HAPPEN IF WE HAD NO MONEY?
  1. List five goods that you would normally buy at the store.
     (a)
     (b)
     (c)
     (d)
     (e)
  2. Take each of the above-listed items and explain a plan of action you could use to get this item if you lived in a society whose money had suddenly lost all value.
     (a)
     (b)
     (c)
     (d)
     (e)
  3. What kind of major problems would you face?

B. HOW LONG COULD A COUNTRY EXIST WITHOUT A MONETARY SYSTEM?
  1. What might happen if the U.S. had no monetary system?
  2. What problems would a person face if (s)he lived in a city?
  3. What kinds of problems would a person face if (s)he were living in a rural (country) area?
  4. What purpose would money serve in each area?

C. WRITE A STORY STATING AN EXAMPLE OF HOW TRADE COULD COMPLICATE THE PROCESS OF GETTING WHAT YOU MIGHT WANT IF YOU HAD NO MONEY.

D. DRAW A CARTOON SHOWING ONE PROBLEM OF TRADE WITHOUT MONEY. (optional)

Take the four worksheets and put into individual folders or books on MONEY. Have the students bring these papers to a group round-table discussion. Discuss the various ways the students attempted to solve the problem of a lack of a monetary system. Help the students to realize that money helps in the following ways: Money (1) has value in exchange for goods and services; (2) allows for specialization; (3) makes for more production than in a barter economy (due to numbers 2 and 4); and (4) facilitates the exchange of goods and services by lessening the time and effort required to carry on trade.

Follow-up Activities

The student should investigate the many forms that money has taken over the years. The encyclopedia offers a valuable source of information. Some early forms of money include seashells, rocks and beads. Once again, the issue of intrinsic vs. extrinsic value is reemphasized.

IV. Evaluation

Cognitive Test—Money

1. A major benefit of a money economy is:
  a. You can get anything you want.
  × b. Saves time in exchange of goods and services.
  c. You can use it to wallpaper rooms.

2. A major economic benefit of money is:
  × a. Allows for specialization in production.
  b. More food for everyone.
  c. Gives you a feeling of power.

3. List two ways in which money is useful within our society.
(Possible answers):
  × a. Allows for increased specialization.
  × b. Speeds up production because resources are used in producing rather than trade.
  × c. It is a convenient unit of value.

4. Write a paragraph explaining what makes money valuable.

Out of Thin Air: An Economic Simulation Activity on Money and Banking

I. Description of Concepts

Young children (and many of their elders) have a great many misconceptions concerning the concept of money—what it is and what gives it value—and hence will often misinterpret its importance. This can lead to affective as well as empirical problems in adulthood. The same group of children are often confused as to the functions of banks, their purpose as private businesses, and their worth to the community.

The ideal introduction to money—its real value and alternative forms—is through an experience-based program representing a total economy. However, some teachers are unable to implement such an extensive program. This simulation is designed to help children to explore a number of concepts in the money and banking group.

II. Objectives

1. Students will be able to explain some of the advantages of a money economy over barter.
2. Students will be able to define money as anything commonly accepted in a society in exchange for goods and services.
3. Students will be able to explain that the U.S. economy uses both cash and checking accounts as money.
4. Students will be able to explain the concept of deferred payments through media such as credit cards.
5. Students will be able to explain interest as a payment for the interim use of another's money.
6. Students will be able to differentiate between time (savings) and demand (checking) deposits and to explain the purposes of these and other bank functions such as loans and bank cards.
7. Students will be able to explain the value of banks to the community because of time and demand deposits, loans and other services.
8. Students will be able to explain that banks create much of the money used within our system by making loans.

III. Directions and Instructional Sequence

Room Arrangement and Materials

The physical arrangement of the individual classroom is not relevant to this lesson. It can be implemented in a classroom of any physical size or arrangement. An asset to the lesson is a room in which chairs can be arranged in a circle or rectangle so that all speakers can see one another.

Materials for the lesson include samples of items which have historically served as money: salt, shells, blankets, nails, as well as foreign currency and coins and a small amount of U.S. currency, coins and checks (for sample use only). Crafts supplies and games usually found in the classroom can be used for barter and money economy simulation phases, although the teacher may wish to bring extra crafts items and some "rental" equipment from outside. Facilities for printing class currency are necessary (ditto masters and machine) unless a ready-made currency is used (money from a board game or "play" money from the store).

Suggested films can be found listed in Appendix C (page 58).

Sequence of Activities and Procedures

1. The lesson is introduced by a general discussion centering around various items which historically have been or could have been used as "money": blankets, nails, shells, salt, etc. Bring in examples of such things and direct the discussion by exhibiting the items one at a time and giving examples of how they were used:
   a. American colonists used nails as a medium of exchange but since the nails were relatively scarce and had inherent value as fastening devices they could be used as fasteners or money by those holding them.
   b. American Indians produced woven blankets and rugs which they used both to keep warm and as a medium of exchange.
   c. Any other trade situation the teacher deems instructive for an example.

Have the students role-play the examples, emphasizing the fact that these money items were valued both as a medium of exchange and for their applied uses. Now role-play a situation or two in which the money does not have an obvious applied use. For example, paper currency hasn't an obvious applied use and, whereas gold coins may have a more obvious applied use (they can be melted down, or made into jewelry or other objects) they cannot be readily used for anything but exchange.

2. Continue the discussion by bringing in various foreign currency and coins. Allow the children to examine these along with some of the items from step 1. Then add some U.S. currency, coins, and checks. Ask the students to indicate which of the items could be taken to an auto repair, the corner store, to a large supermarket, to a department store and to a hamburger stand and used to purchase goods and services. Elicit answers as to *why* the storekeepers and clerks might accept some of the items and not the others. The major point of this discussion is that we can use U.S. currency and coins (in some stores checks are acceptable with proper I.D., and credit cards are accepted in places which are subscribers to the various card company services) to purchase what we want because the merchants will *accept* them. Have the children role-play consumers spending and merchants selling. Ask the children who played the merchants to "go home from their businesses" and continue to role-play the merchants buying the things they *personally* want. Have them return to their stores and pay their employees, pay rent on the store and buy more merchandise for their shelves. Emphasize this point of the role-playing in the follow-up discussion: The merchants accept the cash because they believe they can then use it to pay their business and personal debts and to buy the things they want. Ask the role-players what they would have said and how they would have felt if the consumers had tried

to purchase products with blankets, salt or shells. What about foreign currency? (Should you wish to digress, or should a student bring up the point, you can explain how foreign currency and coins can be exchanged at large banks, just as people from other countries who have visited the U.S. can take the U.S. currency they have left over and exchange it at banks for their own countries' currencies.) Ask the group to help you to define "money": whatever is accepted by a group in exchange for goods and services.

3. You may now wish to show the film "The Story of Our Money System" to introduce the next phase of activities (see Appendix C, page 58).

4. With the help of the students set up a class store to be owned by the teacher. Students may suggest school-related items they wish to buy or rent during a special purchasing period each day. Types of items for sale or rent can include games, P.E. equipment, special craft supplies, film viewers, typewriters, etc. These can be provided from the supply cabinet, from the teacher, by parent donations or by some combination of these (don't neglect "trash" items which are potentially craft supplies—old milk cartons, egg cartons, paper bags, coffee cans, material scraps, etc.). The teacher can eventually hire students to clerk in the stores (during 4b and 5).

a. In stage 1, students are paid for daily completion of assignments (not for grades themselves) and for school attendance. (You may wish to use other easily achieved behaviors but keep them objective and do not use more than two behaviors.) For the first two days students may be paid in a variety of items such as pencils, crayons, or sheets of colored paper. At this stage the teacher should run the store him/herself and negotiate for trades. Children coming to the store with their "pay" will have to barter for the things they want to buy or rent. Do not make the trading too easy, and encourage trading among consumers. There should be some discussion of the relative value of items and some chain trades should be necessary. Follow each day of trading with a discussion of the difficulties encountered. Examples of difficulties are:

(1) I wanted to trade my sheet of red paper for the rental of a game for 15 minutes. But the paper turned out to be worth only 10 minutes of the game rental.

(2) I wanted to use my pencils to buy some craft supplies. I wanted to trade a pencil for a coffee can but the price of the coffee can was 1½ pencils and I didn't want to break the pencil in half.

(3) I wanted to use my crayon to trade for the use of the typewriter but the store already had a lot of crayons. The store keeper said that the store needed purple paper. I had to spend all my time trading with lots of people until I could get the purple paper.

(4) I bought an egg carton in exchange for a red crayon. I wanted to get a green crayon to color the egg carton but I couldn't find anyone who wanted to trade a green crayon for my other red crayon.

Translate these into types of difficulties: there is no common unit of value; trading can be very time consuming; you may have to search for a trade; you may not find a situation of reciprocal wants, and you may not be able to agree on relative worth.

b. On the third day of the simulation, introduce the idea of transferring to a money system. Explain that the "money" could be any of the items they have been using in barter. For example, they could all be paid in crayons and, if crayons were accepted as money, they would become money. However, in this activity we are going to see what it is like to use paper money. Depending on the maturity level of your class and the amount of time you wish to allot to this lesson you may include students in the creation of currency, having them design a few simple bills. Or you may simply create a money supply yourself, running off ditto pages of, perhaps, ones, fives and tens. Alternatives to this would be using some other type of token money, already produced but not easily available to the children. All in all, your own design takes more time to produce but alleviates most of the problems of using monopoly or play money (or money from any board game) because your own money is unique and can't easily be counterfeited or brought from outside the system. For the next several days (about one week) continue to pay the children for completion of assignments and attendance. Continue the follow-up discussions after each day's trading, emphasizing the following points:

(1) Immediately after the change-over, ask the children to explain the value of the money in terms of the barter items they used previously. For example, if the typewriter could previously be rented for 15 minutes for a red crayon and it is now priced at 5 kumquats (a possible name for your currency), the 5 kumquats may be said to be worth a red crayon or 15 minutes of the typewriter. Nothing about the typewriter rental has changed except the units it is exchanged for. Emphasize that the value of the money can be expressed by the denomination (5 kumquats) but what it is worth is in terms of what it can buy.

(2) Reemphasize the nature of money by reconfirming that, within the classroom during purchasing time, the currency *acts* as money so therefore it *is* money.

5. As soon as the currency system is solidly in use (2-3 days) establish two banks. You might possibly assign children to do business with one bank or the other. Before the banks begin to operate do a short lesson on how to keep bank records (use simplified forms for the banks, see Appendix D, page 58) and on the nature of checking accounts and savings accounts. Also explain the use of credit cards. To make it more convenient for students to use checking accounts and credit cards, allow bank withdrawals only at the end of each purchasing period. Interest will be paid daily on savings accounts and checking accounts will be levied with a small service charge. There is no charge to consumers for the use of credit cards unless payment (due after two days) is late.

After the banks begin operations (they may be operated with hired students' help, as in the store), begin to manipulate the economy in the following way: Announce the availability of consumer loans and at the same time put some very desirable items up for sale in the store at relatively high prices. Also announce the availability of business loans and encourage a few students or groups of students to offer goods and services through their own stores as a way of supplementing their incomes. As money is deposited in the banks, remember to keep at least 20 percent of deposits as vault cash but lend the rest. When a consumer or businessperson takes out a loan from the bank, suggest that most of it not change hands as actual cash but be put into the *other* bank as a checking account. After a week of such lending activities, much of the class money should exist in the form of balances in checking accounts but not in the form of actual cash. As you plan to end the simulation phase of this lesson, ask the students what would happen if all depositors in the banks wanted their money all at once. They will probably believe that they could all collect! "After all, it's our money!"

With checking account balance sheets out, add up all the "money" in the room (checking account balances and cash) note that it is a greater sum than the initial amount of money printed for the simulation. Yet, anyone with a checking account knows he can use his "money." Reinforce the concepts here that the children have already experienced:

a. Checking accounts are as much "money" as cash is.
b. Banks pay interest on savings accounts because they use some of the money on deposit to lend to others (who in turn pay the banks interest for the use of the money).
c. Checking accounts are convenient for consumers; it isn't necessary to carry cash because the checks represent immediate payments and are used like cash.
d. Credit cards allow the consumer to buy now (since they are accepted by the merchants as cash would be) and pay later (since the payments are not immediately due).

Focus on the phenomenon of expanding money supply. Explain that the same thing happens in the U.S. as did in the classroom. People deposit savings in the bank (and earn interest on them), sometimes leaving them for a long time. Banks are allowed to lend *part* of the money. With more than one bank in operation, the same "money" can be lent more than once and put into checking accounts where it acts just like money for the borrowers (although some of it doesn't actually exist as physical cash). So long as people don't get terribly worried and want all their money at the same time (a run on the banks) it all works very smoothly. In the U.S. the amount which can be lent is controlled by the government so that the depositors can almost always get their money out as soon as they want it.

By making loans in this way, bankers (who are private businesspeople) can earn a profit themselves (from interest received on loans and investments), and can also benefit the community by making money available for consumers and businesspeople through loans. Using these loans, consumers can get some of the larger items they wish to purchase without having to wait to "save up" for them, and businesspeople can get loans to start businesses or expand their businesses without having to save up their profits for such. Besides this, banks provide the convenience of a safe place to store money, pay interest for those who save at them and provide added conveniences of checking accounts and charge cards.

Follow-up Activities

The following is designed to reinforce and review concepts experienced earlier in the lesson.

Going back to the beginning of the lesson, review through discussion:

a. What money is—anything a group decides on and is accepted in exchange for goods and services. It can take any form the group wishes, either something inherently valuable or not.
b. What are some advantages of money over barter—common unit of value, medium of exchange, time-saver, used to compute how much debt is owed, etc.
c. When we had a money system, what acted as money? Cash and checking accounts. Credit cards act differently because when a check is written the money is immediately subtracted from the account whereas with a credit card, you may pay later, and only after you pay does money change hands.
d. The differences between time deposits (savings accounts) and demand deposits (checking accounts)—Checking accounts are just like cash but allow the user to have the money safely on deposit while still using it. Savings accounts sometimes require a waiting period before money can be withdrawn (only at the end of the day in the simulation) but pay interest. This is because the bank uses some of the money while it is on deposit to make loans (earn interest for themselves) and sometimes needs time to call in loans to return your savings to you. Because the bank uses your money while you are not using it, they pay you interest (in essence, you are lending your money to the bank).
e. An activity for gifted students is as follows: Simulate the expansion of money between the two banks by walking through the demand deposit of $1,000. Have the bank keep 25 percent of the deposit on hand and lend 75 percent which is then deposited in another bank as a demand deposit. This bank must keep 25 percent of the *new* deposit on hand and lend 75 percent, etc. Have the children role-play this and add up the "money" created by the initial deposit.
f. Show one or both of the "banking" films suggested (see Appendix C, page 58).

IV. Evaluation

The following items are intended for administering after the completion of the entire unit. They are designed to measure achievement of the specified objectives. Achievement of objective 6 should be ascertained during the follow-up discussion.

1. You are a teacher explaining some of the reasons societies have money instead of barter (trading) economies. Which of these is an economic reason to have money instead of a barter system?

a. Money can have beautiful pictures and designs drawn on it.
× b. Money can be spent for anything the person wants to buy, but in barter you must either use things or trade them.

2. You live in a barter system and want to trade your cow for some vegetables. The other farmer has only six heads of lettuce and 10 tomatoes. You don't think those are worth a whole cow but the farmer wants a live cow, not part of the meat from a dead cow. How would a paper money system help you to make this trade?

Criterion for correctness: Student must indicate that with paper money the units of value can be more easily divided than the cow or other barter items.

3. Far away there is an island called Foboland. When you go into a store in Foboland and buy something, the storekeeper asks for blue beads. The storekeeper pays his helpers in blue beads and they use the beads to buy food and other things. Which of these is true?

× a. Blue beads are money in Foboland.
b. Blue beads are not money in Foboland.
c. The people in Foboland must be doing this to fool you because it's April Fool's Day.
d. People in Foboland have a barter economy.

4. In the United States we use currency called dollars. In France, the currency is called francs.

a. Could you go into most U.S. stores and buy things with francs?
YES [✓ NO]
b. Could you go into just any store in France and buy things with U.S. dollars?
YES [✓ NO]
c. Are dollars money in the U.S.?
[✓ YES] NO
d. Are francs money in France?
[✓ YES] NO

5. Which of the following things is not used as money in the United States?

a. Dollars
b. Coins such as dimes, nickels and quarters
× c. Blue beads
d. Personal checks from a bank checking account

6. When I went into a store yesterday, the salesperson asked if I was going to pay with cash or a check. Why would the store take a check from my checking account in exchange for the candy I was buying?

Criterion for correctness: A check is used in the same way as cash money.

7. When I use a credit card from my bank to pay for something I buy, what does that mean?

a. I don't have to pay for the things that I buy. I just sign my name.
b. The people from the store will call me on the phone later and ask me to bring them some real money for the things I bought.
× c. I sign my name to show that I owe money for the things I bought. My bank will pay the store and I will pay my bank later for those things.

8. Jimmy's store gives credit cards to good customers. They can then use the credit cards anytime they buy something in Jimmy's store. How does Jimmy get the money for things people buy with credit cards?

a. Jimmy doesn't get any money for things people buy with credit cards. He just gives the things away as gifts.
× b. Jimmy's store sends a bill at the end of the month for all the things a person buys with a credit card. Then the person gives Jimmy cash or a check for that amount.
c. People can only use credit cards if Jimmy owes *them* money. The credit card is a way for Jimmy to pay back the people to whom he owes money.

9. When you borrow money from a bank or loan company, why do they usually want you to pay them interest plus the original amount of the loan when the time comes to pay the money back?

a. Because they don't want to lend the money and they hope having to pay interest will make you save your own money instead of borrowing theirs.
× b. Because they are trying to earn a profit. When you borrow their money they cannot use it in other ways, so they ask you to pay for the use of their money.
c. Because they don't know you and they want extra money to be sure you won't leave town with their money.

10. When you put money into the bank in a savings account, the bank pays you extra money for leaving it there. Why does the bank pay you this interest?

a. Because they like you and want you to like them.
b. Because they think you must need the extra money.
× c. Because they use part of your money for loans and you can't use the money while they are using it, so they pay you.

11. Banks provide certain services because they are businesses and want to earn a profit and keep their customers happy. Many of the services banks perform are important to the whole community. Why are loans important to the whole community?

a. Because the people who get the loans are happy and that makes everyone feel better.
× b. Because some loans are used to open new businesses and make other businesses bigger. This can provide more jobs for people and also can give the people more choices of things to buy.
c. Because loans make sure that no one is poor.

12. Banks also allow people to open checking accounts (demand deposits). Why is this an important convenience for many people?

a. Because people like to pay for things with checks since they have pretty pictures on them.
b. Because the bank usually makes you pay some money for the paper checks. This makes people more careful about how many checks they write.
× c. Because people can write checks to use just like money but they don't have to carry all their money around with them.

13. Economists sometimes say that banks create money. What does this mean?

a. It means that each bank has a printing press and prints money when it wants to make a loan.
× b. It means that banks lend part of the money from demand deposits and when lots of banks do this, there is more money to use than just the paper money the government prints.
c. It means that bankers are magicians and they can make money come out of their hats like a magic show.

14. Suppose all the people who had savings accounts and checking accounts in all the banks in the U.S. decided to take it all out at once. Would there be enough dollars and quarters and dimes to pay them all at once?

YES [✓ NO]

Why do you say that?
Criterion for correctness: Because lots of the money in the U.S. is "checking account money" that you can use like money but it is only written down on paper. There aren't enough dollars for everyone to have all his money in cash.

Appendix C

Films

"Money in the Bank—and Out"

Emphasizes how a bank helps a community by keeping money in circulation. Explains such procedures and terminology as deposits, checks, interest and money flow.

"The Story of Our Money System"

Traces the evolution of the unified money system from bartering to the convenient forms used today.

"It's All Mine"

Presents an animated cartoon designed to enlighten children on the use and value of money, the importance of saving, and the basic functions of a bank.

Appendix D

Sample Check

John Doe
Room No. 10
Check No. 1
__________, 19__

Pay to the
Order of ____________________ $__________

______________________________ Dollars

Teacher's Bank
of Room 10 ____________________

Account No. ____________________

Sample Credit Card

Teacher's Bank
Credit Card

John Doe
Room No. 10

Account No. __________
Signature __________

A Way of Amplifying the Concept of Inflation

I. Description of Concepts and Rationale

Although inflation is ever-present in the news, the causes and effects of inflation are not obvious to the student. This lesson will introduce the concept of inflation by focusing on the end-price result of constant increases in the money supply. Simulation of our economy through a token economy will take place for one week in the classroom. The student will observe and participate in a demand-pull inflation situation. In this token-economy structure, the student can readily identify with the real-world price rises through his/her personal classroom experience.

Through participation in the classroom token economy, the student will have the opportunity to interact with other students in an *auction* setting. This will reinforce such concepts as changes in quantity demanded as a result of price changes, and changes in demand as the result of income changes.

II. Objectives

1. On an essay-type test, the student will be able to define inflation as a rise in the general price level as a result of an increase in the money supply relative to production. (Could rephrase to coordinate with grade level.)
2. On a multiple-choice test item, the student will be able to identify four out of six examples of inflation as it occurs within our society.
3. In a group discussion, students will discuss experiences they have had of inflation occurring outside of the classroom.
4. Students will be able to enumerate various solutions to the problem of inflation as it occurred within their classroom: lower the rate of pay to some or all the students for the various tasks performed (decrease money supply in relation to production), discover a way to increase the supply of goods and services, establish some kind of savings program with an ultimate goal of having a use for the money at a later date (decrease demand by altering time preference patterns).
5. The student will be able to define verbally or on a written examination the following terms: (a) inflation; (b) money supply; (c) increase; (d) decrease; and (e) profits.

III. Directions and Instructional Sequence

Room Arrangement and Materials

1. The teacher will establish a token pay for designated work within the classroom. The token pay will be established for a period of one week.

2. The teacher can either arbitrarily set a wage for certain tasks or leave the choice to the group decision-making process.

3. Wages will be paid at the end of each day's work.

4. Set a time of 20 minutes each day for an auction. Two candy bars will be auctioned at the end of each day.

Sequence of Activities and Procedures

Teacher: "For this week we will operate a special system within our classroom. We shall call this the Token-Pay-for-Work Week. I am willing to let you decide on four items of work for which you feel you should receive some token pay. I would also like you to decide how many tokens should be paid for each task. Some possible pay tasks might be attendance, prompt completion of work, various jobs of clean-up within the room, etc."

Possible student reaction: "What's the purpose of getting tokens? What can we do with them?"

Teacher: "At the end of each day we will auction two candy bars, and the two highest bidders will each get a candy bar. We need to determine how much a job is worth. How many tokens can you earn for, say, cleaning the sink? Do you have ideas for jobs?" Discuss the possible ways to establish how much is to be allowed to be earned.

The students will establish the four main categories of pay and amounts to be earned within each category. The choice of work is theirs. At the end of the first day of Token Week, stop about 20 minutes before dismissal time. Have students turn in token time sheets, then pay them accordingly. Bring out the first candy bar for auction; hold the auction. Repeat with the second candy bar. Record purchase prices.

At the end of the second day go through the same process of students performing tasks, receiving pay (increasing the money supply), and auctioning a constant number of goods (constant output). At the end of the auction, compare the purchase prices of the first day with those of the second day. Do not push for any conclusions at this time.

The same process will be repeated on the third, fourth and fifth days. Talk about the high price of the candy bars as compared with those of the first day. Discuss the phenomenon of more money chasing the same amount of goods. Ask if anyone can think of comparable situations in the world outside our classroom. Discuss generally rising prices (e.g., food costs), parents' raises, and constant or decreasing ability to get what they want. Ask if any of the students can give a name to this phenomenon. Lead them to the labeling of this situation as INFLATION.

Follow-up Activities

At the start of the second week, form a discussion circle. Discuss what occurred during the Token-Pay-for-Work Week. Ask the students if they can figure out a way to avoid the problem of inflation. Compare the situation as it occurred in the classroom to the problems faced by their parents. Have the students first deal with solving the classroom inflation, experimenting with various possible solutions, and continue the process for another week or two. It may also be desirable to go into a more complex study of our economy and its problems with inflation. A learning center could be established with worksheets dealing with the following kinds of projects:

1. Survey your home. Ask your parents to name five items the prices of which they feel have most inflated over the last 10 years. Try to find the cost of these items 10 years ago. How can you do this? Go to the library and look up past newspaper ads. Go to your local market and have an interview with the owner or manager. Bring in newspapers. Check the retail price indices.

2. *Survey your community*. Go to a community store. Discuss with the merchant how the present economic situation has affected his/her business. Ask if they are making more money than they were making five years ago. Ask if they are able to buy much more if they are making more money. Find out if it is true that although they are grossing more money, their profits are less because of higher inventory-replacement expenses.

IV. Evaluation

1. Define the term inflation.
2. Check off the situations which could lead to inflation.
   - × a. Mr. Brown has been working for the same company for a long time, and the company decides that all employees of Mr. Brown's age should retire early and make room for new employees. Mr. Brown has to reduce his spending immediately, but his family has trouble with the situation and continues to spend more money than Mr. Brown is now making, so the money must come from his secret savings under his mattress.
   - b. Mr. Jones receives a bonus from work and immediately puts it into savings for any emergency that might occur.
   - c. Johnny Smith receives $20 for a Christmas present from his rich Uncle Tom. John puts his money away in his toy bank to save until he has enough to buy a skateboard.
   - × d. Miss Smith receives a tax rebate of $75 and goes out immediately to buy a new winter coat.
   - × e. Steve Larkin gets a weekly allowance of $5, and also makes some money on extra chores. Steve takes this money and puts it in a savings account. Then Steve sees a bargain buy on a surfboard for $50. He talks his mother into lending him the extra $20 he needs to buy this fabulous board.
3. A government official has turned on the printing presses and created one million dollars. She then goes on a shopping trip and spends this money.
   - a. How does this relate to our classroom experience?
   - b. What has changed in the U.S. economy?
   - c. How can we reverse this process?
   - d. Is this an example of inflation? In what way?

Competing Soft-Drink Stands: An Economic Activity Illustrating Competition and Monopoly

I. Description of Concepts and Rationale

Although children are able to learn and understand many important economic principles by operating any one of the typical businesses described in published units, the important ingredient of competition is seldom included. Since, in the American economy, competition among businesses is so important in determining prices and quality of products sold, it is probably important that, at some point, students are given the opportunity to gain some experience in operating a business which has to deal with at least one competitor.

It is the purpose of this activity to help children to discover a number of basic business and economic principles (e.g., the nature of corporations, factors of production, etc.) by setting up competing soft-drink stands. Two different classrooms will set up their own corporations. However, the main learning outcome to be derived from this unit is the role of competition on price and output, consumer and producer. In order for the students truly to understand the effects of competition, they will first experience a monopoly situation for a soft-drink product, thus allowing comparison of the two situations.

II. Objectives

Major Objectives

1. Students will be able to explain how competition among businesses affects both the price and quantity of goods produced.
2. Students will be able to explain the effects of competition on the producer and the consumer.

Auxiliary Objectives (Optional)

3. Students will be able to explain the basic structure of a corporation and the purpose of stocks.
4. Students will be able to explain capital investment, production costs and profits.
5. Students will be able to explain the possible effects of division of labor and specialization on the quantity and quality of goods produced.

III. Directions and Instructional Sequence

Room Arrangement and Materials

No specific room arrangement is absolutely required for this lesson; however, certain circumstances will aid the lesson in running smoothly. For the initial group discussions concerning decisions to form a company, sell stock, and produce and sell a soft-drink product, the ideal room arrangement would be that of a Glasser group or Magic Circle (chairs arranged so that each member of the class has an "equal" position and all can see one another—a circle or square). This same arrangement would be ideal for all follow-up discussions, but may be most difficult to attain in the culminating discussions, which include both classes. A chalkboard should be available for calculations, illustrations, etc.

For the production phases (including the production of signs and other advertising materials), the ideal situation would be a room with tables and chairs (preferably movable, so assembly lines can be arranged conveniently) rather than individual desks. Also very helpful to the production phases would be the availability of a sink, ideally one within the room itself. Should your room not easily lend itself to such arrangements, an added dimension might be that of renting the school cafeteria (of course, not during lunch or nutrition), the teachers' cafeteria, or similar accommodations. However, before such arrangements are suggested and accomplished, it would be best to ascertain that two such areas were available (for ease of entry for the second class corporation) or that the facilities available could be used at different times of the morning, allowing both classes to participate with equal ease when entry of a competitor is arranged.

The sales phases of the lesson require that some space be available in an area accessible to students during the play period after lunch, such as a corner of the playground where a table and benches could be set up. Ideally, this area should not be too far removed from the rooms of participating classes or from their areas of production, and would be out of the way of sports activities conducted during the play period.

Materials will, in large part, be provided from outside the classroom through purchases and rentals by the corporations. It may be desirable for the teachers to provide some of the rental materials themselves (charging, of course, for their use) in order to cut down on confusion of bringing too many items from the outside. Teachers could make available for rental the most obvious equipment required for the initial production of lemonade such as measuring cups, spoons, and containers, leaving more specialized (and larger) equipment (juicers, strainers, blenders, etc.) for rental from parents.

Other materials required in the course of the lesson include colored construction paper (for the printing of stock certificates), art materials (for the production of advertising posters and other types of ads),* paper and pens or pencils for record-keeping, letter-writing, etc.

Optional but desirable materials include a library of books and articles on businesses and elementary economic concepts for use in decision-making and follow-up discussions; and cookbooks (at grade level) and magazines to guide in the production of soft drinks and to provide ideas for changes in products. Another useful item would be aprons for use during the production and sales phases. These can be provided by the teacher or brought from home.

The constraints issued by the principal and/or nurse should be considered when determining materials and room arrangement as well as scheduling for the lesson. The nurse, for example, may require that hair be tied back (necessitating rubber bands or other articles brought from home or provided by the teacher), that the class visit lavatories as a group before production and sales to be sure that hands are washed, or that production take place away from open windows. Such factors may affect the purchasing decisions made by the classes at a later phase, too. If students decide to speed up lines by pouring lemonade before sales begin, the nurse may require that the cups be covered until sales begin (necessitating the purchase of wax paper or a similar product). The principal may decide to hold the corporations responsible for yard clean-up after lunch, suggesting the need to move trash cans to the sales area.

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*These should be sold to the students by the teachers so they experience the out-of-pocket costs of such materials.

Sequence of Activities and Procedures

Motivational and Informational

This lesson requires advance planning and cooperation between two teachers of intermediate grade classes. One class will precede the other in actually setting up a corporation, and the timing for entry of the second class corporation will be planned by the teachers unless entry into the soft-drink market is spontaneously suggested by members of the second class after the establishment of the first business. Cooperation of the principal and school nurse should also be solicited in advance.

In the first classroom, the teacher should introduce the idea of learning about businesses by actually setting up and operating a soft-drink stand on the playground. Once it is established that this business is a good idea, the teacher should explain the steps which must be taken before the business venture can actually begin: (1) obtain a license to operate, (2) obtain a health certificate, and (3) obtain money to buy or rent materials and machines to produce the soft drinks. Students may decide they can get a business license from the principal and a health certificate from the school nurse. A discussion of methods of financing may be more complicated as students consider alternatives of borrowing the money from various sources or of selling stock in their corporation. Stocks should be explained with an emphasis on the fact that stockholders may make money if the company makes a profit, but that there is the possibility of loss to the stockholders.

In the second classroom, the teacher may either begin general, less personalized lessons on starting a business, the nature of stock, etc., or (s)he may postpone these until introducing the idea of competing with the business of the first classroom.

Organizing the First Corporation

Students in the first classroom, having been advised that their first product would be lemonade but that other soft drinks could be substituted or added later, can now start organizing their corporation. They will probably wish to choose a corporate name, and elect a board of directors with officers such as president, vice president(s), secretary and treasurer.

The secretary of the corporation will then write letters to the school principal and nurse requesting a license to operate the business and a health certificate. In reply, the principal would agree to issue the license, but advise the group that it would have to pay the school a percentage of its profits as rent for the use of the room and playground (as well as a business table) as its place of business. The granting of the business license may include certain conditions suitable to individual schools, such as when sales will be allowed. It may be desirable to limit sales to the play period *following* lunch, thus cutting down on students spending lunch money for soft drinks. The nurse should inspect the room and talk to the students about laws governing the production of food. She would then agree to issue the health certificate, but warn that she would inspect their operation frequently to make sure that all conditions were sanitary.

A discussion should then be held to determine what materials will be required to start production. Materials commonly named will be large plastic containers with lids, and knives, measuring cups, juice squeezers, strainers, large spoons, etc. The teacher may suggest that these materials could be rented from the teacher or the parents of various students rather than purchased outright. The rent could be paid from money received after sales were started. Other materials which will be needed are cups (paper or styrofoam), lemons, sugar and ice. It will be necessary to purchase these from money received from an initial loan or from the sale of stocks.

Also at this time, the issue of payment for labor and management must be decided. The company may wish to divide itself into four departments: production, advertising, sales and maintenance, and may also wish to appoint a vice president, foreman or manager to run each department. Payment for the services of these persons should be discussed, including the probable desirability of differential pay rates for those with differing levels of responsibility. For example, the class may decide to pay the company officers 10¢ per day, managers 8¢ per day, and all other workers 5¢ per day.

Students may independently opt for the sale of stocks rather than taking out a loan for the initial capital. However, should the students remain undecided, the teacher may point out the benefits of selling stock over those of obtaining a loan: (1) the difficulty students may have in obtaining and repaying a loan, (2) should a loss be incurred, stockholders would share in the loss, and (3) members of the company may invest in stock commensurate with their faith in the success of the operation, etc.

Students must now decide how many shares of stock to make available for what initial price, and any conditions of sales. They may decide to sell anywhere from 50 to 300 shares of stock at a price range of 5 to 25¢ per share. The teacher's input is an important factor here, to insure that stock sales cover the approximate initial costs of production, or the business will never begin. Students may have difficulty judging the costs of materials, and some appropriate estimation along with addition on the blackboard will be very helpful in deciding how many shares to sell at what price. Also helpful may be a cursory demand schedule derived by polling class members as to how many shares they would be willing to purchase at what prices. This can be accomplished by listing alternative prices per share of stock in one column, and listing the total number of shares students would be willing to purchase at each price (during a specified time period) in the adjoining column. A third column, total revenue, can then be computed by multiplying each price and the quantity demanded at this price. When polling students to determine quantity demanded at each price, add the total number of shares all students indicate they would purchase at that price (e.g., if at 25¢ per share 10 students would purchase two shares each, 12 students would purchase 1 share each, and 10 would purchase no shares, the quantity demanded at 25¢ per share would be 32 shares. Total revenue would be $8.00). In deriving such a demand schedule, it is important to remind students that demand is desire *backed by the ability to pay*. The market demand schedule would look something like this:

Time Period: One-Hour Stock Sale
Two Days from Now

Price per Share of Stock in the Corporation	Quantity Demanded	Total Revenue (Price times Quantity Demanded)
5¢		
10¢		
15¢		
20¢		
25¢		

Other questions to be answered are: Will there be a limit on the number of shares which can be purchased by one individual? Will stock be available to children from outside the class? And, if so, will children in the class be given a period of advance sales and thus receive preference for purchasing the stock?

These matters decided, it will be helpful for the teacher to limit the time of production to, perhaps, one hour per day. Letters should be sent to parents explaining the activity and the sale of stock (see Appendix E, pages 66-67). If sales outside the classroom are to be allowed, students may wish to prepare posters advertising the stock sale.

A day or two following the advertising and parent letters, stocks should be sold. These sales may become complicated if some students wish to purchase multiple shares, or too many students outside the class want to become shareholders. Classes which previously did not opt to limit shares purchased per person may now decide to do so. Even in this event, some hopeful buyers may be unable to obtain shares. They may become angry, or they may attempt to purchase shares from the other students at a price higher than that initially paid. It may be desirable to end the stock sale with an analytical (and calming) discussion of the events.

In any case, the company will now have capital with which to purchase supplies. A purchasing agent should be appointed to obtain the supplies so that production can start the following day. The class may wish to hold a short discussion to provide inputs to the purchasing agent. They may express opinions as to where the agent may get the "best deal," and provide information such as the location of a supermarket with low prices, or information that a neighbor owns several lemon trees and may be willing to sell the lemons for a price lower than that of the supermarket. At this time, students should also respond to previous inquiries as to the rental of equipment from their parents and the rental price agreed upon. Now the advertising crews will create and display posters announcing the sale of lemonade after lunch the following day.

Production and Sales

The purchasing agent should report on supplies obtained and rentals arranged. The class should be advised on the importance of careful record-keeping, including amounts purchased of supplies, rentals arranged for, and amounts produced and sold daily, as well as a final report on total expenditures and total income.

The manager of production should set up assembly lines for production, the number of which will probably be governed by the number of juice squeezers and mixing containers available. Typical jobs on the assembly line are: cutting lemons, squeezing the juice, straining the juice (optional), measuring the juice, adding the water, adding the sugar, mixing the lemonade, and adding the ice. (NOTE: An official of the company will have had to arrange for rental of school cafeteria freezer space, rental of freezer space and delivery of ice from a parent, or the rental of ice chests—for storage of ice.) By the end of the production hour, students will probably have produced between one and five gallons of lemonade. You will probably wish to calculate the number of cups which the produced lemonade will fill. With information as to the number of cupsful produced, as well as a list of costs incurred, students can decide on the price per cup at which the lemonade will be sold. Costs of production which should be considered include raw materials purchased by the purchasing agent, as well as rentals and salaries agreed upon. The total of these costs divided by the number of cupsful which can be produced would result in the cost of production per cup. Students should consider these costs, as well as the "income level" of schoolmates, in setting an initial price. Again, teacher input is important here. You may suggest that students calculate how many cupsful they must sell at various prices in order to make a profit.

Following lunch, the company will begin sales, most probably with two or three children pouring and serving the lemonade and one taking cash and making change. The sales manager will want to consider the length of the forming lines, and possibly add extra servers.

Following the sales, the class should meet to determine its financial position, being careful not to forget rental costs which may be due at the end of the week or later. Plans should be made for purchase of more supplies if necessary, and approximate profit should be calculated. (If the company has not made a profit, the teacher should provide appropriate inputs concerning the purchase of supplies, sale price per cup, etc.) Sales should continue on this basis for the days following.

Organizing the Second Corporation

As soon as it is determined that the first corporation has made a profit, the idea of competing with the first class should be introduced in the second classroom. The teacher should make the point that, since there is a demand for soft drinks and a profit is being made, perhaps this second class can earn part of the profit for themselves by competing for sales with the first corporation. The sequence of events is the same as that for the first corporation, with the added dimension that production and sales decisions should be made with careful consideration of the competition aspect. The second class may wish to advertise more extensively than the first, may wish to produce a larger quantity of lemonade than the first (especially if unsatisfied buyers were turned away from the first stand), or may feel that supplies can be purchased at lower prices from other sources. As soon as the initial decisions are made and stock sales are completed, the second corporation should begin production and sales of lemonade in competition with the first (under the same time constraints levied on the other class). Following one or two days of competition, classes should be allowed to change their products to other soft drinks should they wish.

At the end of each day of sales, the classes should meet separately or in conjunction to discuss the interaction of prices charged, quantities sold, etc. The classes will wish to meet separately to make decisions concerning changing their product, their prices, their advertising, etc. Typical changes which may be made include:

(a) A company using hand juicers may elect to rent electric juicers to increase production. This type of change will probably occur when buyers have been turned away (and then go to the other company) due to a small supply.

(b) A company which had been buying ice cubes may decide to lower its cost of production (and increase its profits) by renting freezer space and ice cube trays from a parent or the school and producing its own ice cubes rather than buying them at a higher price.

(c) Students may discover outlet stores for the purchase of supplies such as paper cups at a lower price than had been paid in initial purchases of supplies.

(d) Students may change their product to another soft drink such as Kool-Aid or punch made from a concentrated base, the supplies for which could be purchased for lower prices. They may decide to advertise this change and lower their prices.

(e) Other product changes may be more radical. Students may decide to freeze punch or Kool-Aid in ice cube trays and sell popsicles. They may decide to crush ice, pour punch or base over it, and sell snow-cones. Their competitors may then decide to freeze the Kool-Aid and whip the melting concoction in rented blenders, selling "Slush."

Throughout these changes, the follow-up discussions should continue, analyzing prices charged, quantities purchased, nonprice competition methods used (advertising, bonus items, treatment of customers, etc.), and profits made.

During the operations of the companies, many situations may arise which involve not only economic consequences but also the children's feelings, values and attitudes. The teacher should be alert to such situations and when they occur should include the affective aspects of these problems in follow-up discussions after the day's business. Typical situations which may arise include:

1. Someone steals some of the company's funds.
2. Incorrect change is given by one of the sellers.
3. A child spills a container of soft drinks.
4. A valuable piece of equipment is broken.
5. One person on the production line is not doing his job.
6. Clean-up crews are playing instead of working.
7. Members of one company are starting rumors about the inferiority of the other company's product.
8. Members of one company gather around the competitor's stand, making it difficult for potential buyers to buy.
9. Members of the companies get together to set prices and lobby against price competition in discussions.

Culminating Activity

After 1½ to 2 weeks of competition, both companies should be simultaneously dissolved. The books should be cleared, with workers paid their wages, rentals concluded and paid, etc. The students should be advised of the coming dissolution several days in advance so they may use up supplies on hand and judge carefully the purchase of any additional materials. At the dissolution of the companies, it is time for the treasurers to present their final financial reports, both for analysis and so that profits can be divided up among stockholders according to their individual holdings. Stockholders may have increased their initial investments, or may receive only their initial investments or less at the end of the ventures. One company may have earned significantly more profit than its competitor. All these things will be subject to discussion when the classes meet and compare their financial statements. However, the major emphasis of the culminating discussion should be the effects of a competing organization entering the soft-drink market. When freedom of entry into the market exists, prices go down and the quality of products improves as firms compete for patronage. The quantity of goods available for purchase is greater in a competitive situation than in a monopoly situation, also due to firms vying for profits. Students from both classes should be led in inquiry discussions concerning the amount of profit made by the monopolistic corporation and the profits earned by the corporations in competition. In addition, the prices paid by consumers during the monopoly and competition phases, the changes in quantity produced, advertising campaigns, etc., should be reviewed. The following questions may be used as a framework for the culmination discussion:

1. What things might have been done to improve production and sales?
   Possible Response: Firms could have increased advertising. Firms could have added workers or machines to their assembly lines.
2. Thinking about the things which were done by each company to increase profits, which things do you see that were alike? Why?
   Possible Response: Both companies advertised. Both lowered prices to increase sales.
3. What things do you see that were different? Why?
   Possible Response: Company A started making lemonade pops, but Company B used electric juicers to increase production and lower prices, too.
4. a. Why do you think there was this difference in the action taken by the two businesses? Explain.
   Possible Response: Each thought what it did would bring more customers.
   b. Why do you think both groups did this? What makes you think that?
   Possible Response: They wanted more customers so they could make more money. They wanted to get customers away from the other company.
5. a. Thinking about the reasons the two businesses took certain actions, what can you conclude are the reasons American businesses make changes in their products and methods of production and sales?
   Possible Response: To compete with other businesses for customers. To earn more profit.
   b. What can you conclude happens as a result of the fact

that these changes are made?
Possible Response: Prices are lower. Products are better, more varied. There are more things to choose from.
c. What general statement can you make about the effect of competition in business for the consumer?
Possible Response: It is good for the consumers because they can get more products and different products for lower prices.

6. a. What do you think might have happened if we had had only one soft-drink company?
Possible Response: We would only have had lemonade, not the other products. And the prices wouldn't have gone down.
b. What makes you think _______ might have happened?
Possible Response: Because only one company wouldn't have had to compete for customers.
c. What would have had to have happened to make _______ possible?
Possible Response: People would have had to want lemonade.
d. If, as you said, _____happened, what do you think might happen after that?
Possible Response: If the price of lemonade was too high, people would start buying less. The price might have gone down some anyway, but not as much.
e. In the light of this discussion, look at the general statement you made earlier. Is it still valid, or would you like to change it in some way?
Possible Response: Yes (or no).

Follow-up Activities

Follow-up activities for this lesson may come directly from some of the points raised in the culminating discussion. If students are uncertain about some of their responses in the culminating discussion, it is facilitative to role-play the situations described for ease of analysis. Some examples of follow-up role-playing are:

1. Students may wish some better idea of the effects of a monopoly situation. Role-play a monopoly situation with one firm selling lemonade only for $1 per cupful. Ask the children to role-play how many cupsful they would have bought and what they would have said. Ask the monopolists to role-play what they would have done. The probable actions taken would be to lower the price to some extent. Another possible response would be to sell a more desirable product such as lemonade pops.

2. As a continuation of role-playing situation 1, bring in another (or several other) competing firms. Start the price at $1 again. Ask the children to role-play what they would have done. Have the competitors verbalize price and product changes as they occur in the role-playing. Ask those children not acting in the role-playing to chart these changes and then discuss them with the entire class.

3. Conduct two separate role-playing actions, one in which the competing firms retain the original product (lemonade or some other product) and compete only by lowering their prices, and another in which the firms compete by such actions as advertising that their product tastes better, has more vitamins, etc., and/or in which the firms compete by changing their product to something slightly different (and presumably more desirable) than the original product (such as lemonade slushes or popsicles). In analyzing the actions in the role-playing situation, have the students differentiate between why they bought more of the products in the first situation and why they bought more in the second.

In the first situation, students will probably indicate that they bought more because it was cheaper (they could "afford" more), and in the second they will probably indicate that they bought one product over the other because they "wanted" it more or because it was a better product. (Situation 1 refers to a movement along a demand curve. The product wasn't more desirable in the minds of the consumer, but the price was lower and because of that they purchased a greater quantity. Situation 2 refers to a change in demand. If the tastes and preferences of consumers are changed—if they see a product as "better"—they may be willing to purchase more of that product at all alternative prices. You may wish to pursue this concept through another lesson dealing primarily with these differences. See lessons on demand and the factors affecting demand.)

IV. Evaluation

The following items are designed to measure the achievement of the specified objectives for the lesson.

1. All the kids at Martin Luther King School like chocolate chip cookies. When would chocolate chip cookies probably be sold at the lowest price?

a. When Bobby is the only one selling chocolate chip cookies.
× b. When Bobby has a chocolate chip cookie business but so does Fran and so does Sarah.
c. Chocolate chip cookies would probably be the same price no matter how many chocolate chip cookie businesses there were.

2. Jill is producing hats and selling them for $2 each. Her profit is $1 per hat. George begins to produce hats in competition with Jill, and he sells his hats for $1.50 per hat. If Jill wishes to compete with George in selling hats by lowering her prices, what will probably happen to the amount of profit she earns per hat?

a. Her profit will go up.
b. Her profit will remain the same as it was.
× c. Her profit will go down.

3. Hilda has a lemonade stand and sells each cup for 10¢. But she only spends one-half hour each day squeezing lemons and so only produces 20 cups per day. She usually runs out of lemonade before the day is over, and many of her customers have now started going to Ralph's stand because he always seems to have enough lemonade for all his customers. Hilda wants to get her customers back, but she doesn't want to lower her prices since Ralph is selling for 10¢ a cup too. What would help her get her customers back?

× a. She could spend more time squeezing lemons and so have more lemonade on hand. Then her customers wouldn't go away angry.
b. She could keep on producing the same amount of lemonade and hope that her customers would get tired of Ralph.
c. She could raise her price and sell less lemonade.

4. Cynthia and John each give skiing lessons for the same price per lesson. Cynthia wants to compete with John for customers, so she gets one of her students who has learned to ski very well to write a letter saying that she is a great teacher. She then uses this letter to advertise her lessons. How will this help Cynthia compete with John if she doesn't lower her prices?

Criterion for Correctness: The student must state that advertising her service (product) will possibly make people think that it is a better one than John's.

Appendix E

MATERIAL SAMPLES

Sample materials provided are:

1. letter to parents
2. stock certificate sample form
3. sample financial report with notations as to the payment of stockholders.

It is suggested that a rental agreement form also be developed which specifies the equipment rented, the fee and time period agreed on, the time payment is due, and a space for the signatures of the corporate representative (student officer of the corporation) and the lessor (parent, teacher, principal or cafeteria head).

Sample Letter to Parents

(Date)

Dear Parents:

The students in Room _____ of _______________ Elementary School are planning to set up a soft-drink company at our school. Our purpose in this is to give the children an opportunity to learn many of the principles upon which the American economic system is based.

In order to obtain the necessary funds to start our business, the "corporation" is issuing shares of stock which will be sold tomorrow. Your child has been advised of the risks involved in the purchase of such stock.

Your child's corporation is planning to sell its stock at ____¢ per share. If you want him (her) to take part in this activity, please see that your child brings money to school.

Sincerely,

(Teacher's signature)

(*Note:* When the second corporation enters the market, you will probably wish to advise the parents of both classrooms of this change, and the learning benefits which will be derived, by means of a similar letter.)

STOCK CERTIFICATE

ONE SHARE COMMON STOCK IN
JUICE-A-GO, INC.

____________________	____________________
President	Secretary
____________________	____________________
Vice President	Treasurer

Shares for the other corporation may be identical except for differences in the name of the company.

These can be run off on colored construction paper, with a different color for each company.

Children should be advised to keep shares in a safe place, as only those who bring their shares to the company will be paid off when the companies go out of business.

SANDY'S JUICE BAR

FINANCIAL REPORT

(Date)

Expenditures	
Rental of Equipment	$ 5.00
Payment for Supplies	15.00
Wages	20.00
Total	$40.00
Cash Received	
Sale of Stock	$12.50
Sale of Products	65.00
Total	$77.50
Cash on Hand	$37.50
Less 20 percent Rental Fees	—7.50
Surplus	$30.00

Surplus to be paid to holders of 50 shares of stock @61¢ per share. Net profit per share: 35¢.

(*Note:* More detailed daily reports itemizing expenditures are advisable.)

JUICE-A-GO, INC.

FINANCIAL REPORT

(Date)

Expenditures	
Rental of Equipment	$ 4.00
Replacement of Broken Equipment	1.50
Payment for Supplies	22.00
Wages	17.00
Total	$44.50
Cash Received	
Sale of Stock	$30.00
Sale of Products	53.00
Total	$83.00
Cash on Hand	$38.50
Less 22 Percent Rental Fees	—8.50
Surplus	$30.00

Surplus to be divided among holders of 300 shares of stock at 10¢ per share. Net profit per share: 0¢.

Competition and Monopoly Baseball

I. Description of Concepts and Rationale

By "tendency toward *competition,*" we are referring to a market situation among buyers and sellers of goods and services in which no one person—or group of persons acting in concert—is able to exercise any control over the conditions of sale. In a market where effective competition prevails, the individual seller cannot control his/her rivals' offerings, and those offerings set narrow limits on the discretion s(he) may exercise with regard to price and production. In other words, the student should be aware that tending toward competition implies genuine independence of action on the part of firms in an industry, no form of collusion, and no predatory practices. Tending toward monopoly, on the other hand, refers to increasing control of the market—some monopoly or control of the market exists whenever a seller—or group of sellers acting by agreement—has sufficient control over the volume of sales to be able to influence the price of the commodity sold, to his/her advantage.

The purpose of this lesson is, through a game format, to offer many reinforcement opportunities for the concepts of monopoly and competition. The players will be given many real-life situations to judge as either competitive or monopolistic. They will also be given opportunities to justify their choices as well as opportunities to rearrange a specified situation so that it becomes the opposite.

The game provides a highly motivating format, and the players are allowed to make choices concerning the type of question they wish to answer and the level of difficulty. When not answering a question, a player can learn in a nonthreatening manner by simply listening to others' questions and answers.

Since the amount consumers pay may often be influenced by the degree of competition that exists in an industry and because political candidates differ in their attitudes toward monopoly power, it is important for learners as future voters as well as consumers to have some idea of the phenomena of competition and monopoly.

II. Objectives

1. The learner will be able to classify correctly a given situation as either competitive or monopolistic.
2. The learner will be able to explain verbally and in writing why a given situation either tends toward monopoly or tends toward competition.
3. The learner will be able to give at least one example of how a given monopolistic situation could be changed so as to be more competitive.
4. The learner will be able to give at least one example of how a competitive situation could be changed so as to become more monopolistic.
5. The learner will be able to spell, orally define, and give examples of: (1) collusion, (2) advertising, (3) predatory practices, (4) competition, (5) monopoly, (6) merger, and (7) trust.

III. Directions and Instructional Sequence

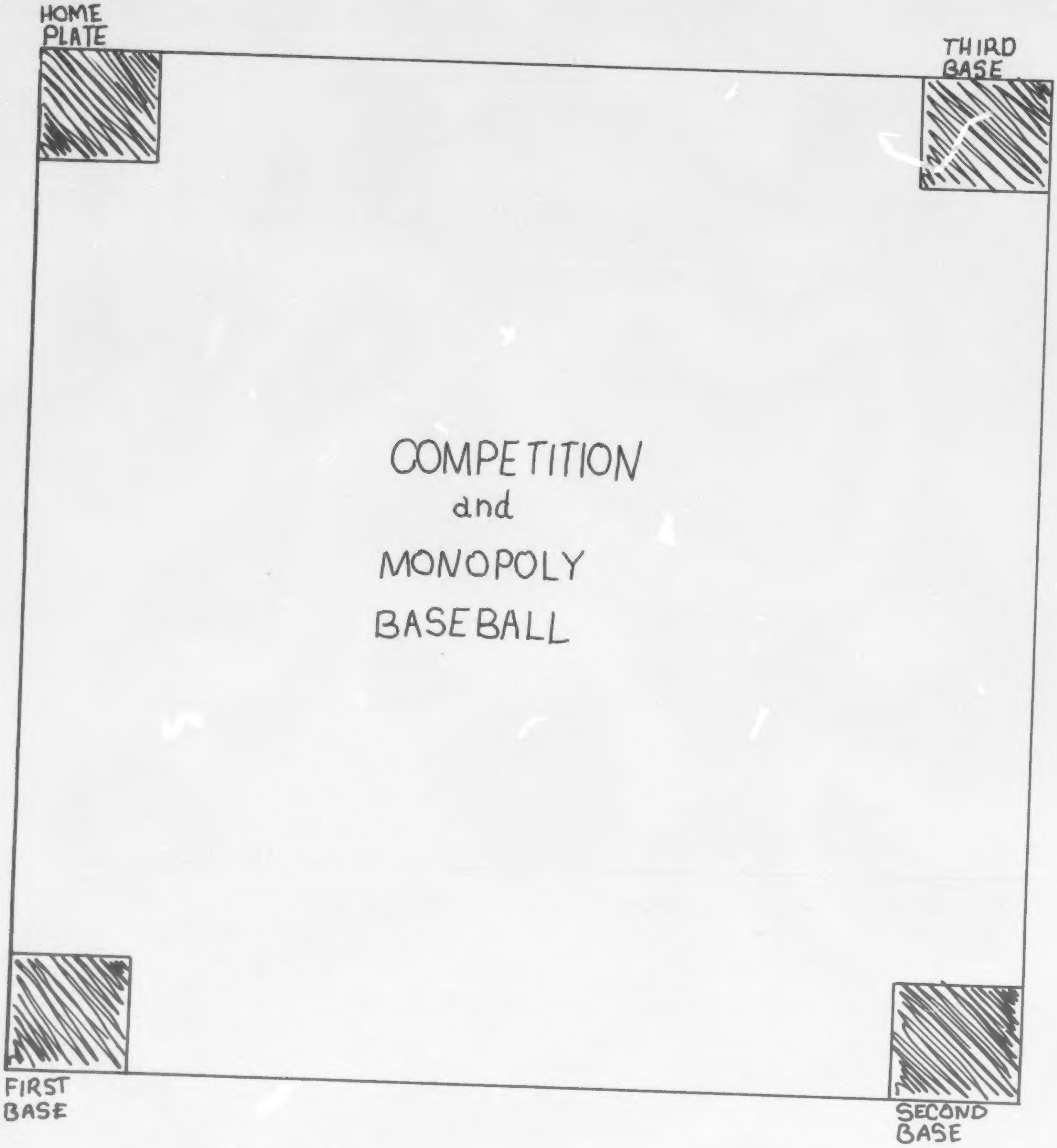
Room Arrangement and Materials

1. At least six markers, each of two colors.
2. Referee score card to keep track of innings, outs and runs.
3. Baseball Field Board.
4. Cards with questions for 1 base, 2 bases, 3 bases and homerun.
5. One die.

Sequence of Activities and Procedures

Rules

1. Three to thirteen players may use this game. One player is to be referee.
2. The teams must be even. This can be accomplished by a throw of the die. Odd numbers (1, 3,5) put the player on the Monopoly Team. Even numbers (2, 4, 6) indicate the player is on the Competition Team. When one team fills up, the remaining players are on the opposite team.
3. *Referee:* The position of referee is regulated by the following:
   a. Selection: The referee may be a volunteer, be appointed by the teacher, or be determined by the throw of the die. If more than one person volunteers, the highest throw of the die will determine the referee.
   b. Duties: The referee reads the questions chosen by the players, checks the answers, makes the final decision on whether an answer is correct, and keeps track of the innings, outs and runs.
   c. It is necessary that the referee be able to read the cards and be impartial at all times.
4. The Monopolists are up first. The order of the team players is determined by the highest throw of the die. The order of the Competitors is determined in the same manner.
5. *Scoring:* A player may choose a card from any of the four categories of questions. If the question is answered correctly, the player moves his/her marker the indicated number of bases. If the question is answered incorrectly, it is an 'out' for the team. When a team has three outs the opposing team is up. Whenever a player gets to homebase a run is scored for his/her team.
6. *Questions:* There are four types of questions. They are ordered from easy to difficult. If answered correctly, the player may proceed to the base he has chosen.
   a. First base: The player classifies the statement as either competition or monopoly.
   b. Second base: The player classifies as competition or monopoly and tells why the statement fits the category selected.
   c. Third base: Given an economic term, the player will define the term, spell it correctly, and give an example of a real-life situation describing the term or make up an example which would properly describe the term.


HOME PLATE
THIRD BASE
FIRST BASE
SECOND BASE

COMPETITION and MONOPOLY BASEBALL

   d. Homerun: The player classifies, tells why, and indicates a way in which the condition can be reversed into the opposing condition. For example, if it is a monopoly situation, what could be changed to make it into a condition of competition.
7. The winner is determined by the team that has the most runs at the end of six innings (i.e., after each team has been up six times). The game may be shortened by playing fewer innings.

Questions for First Base

Directions: The player will classify the statement on the card as either tending toward competition or tending toward monopoly.

1. Copper Pipe company buys all the raw copper available for the year. (Monopoly)
2. You may choose from 27 brands of toothpaste. (Competition)
3. You can only get your telephone from T&W Telephone Co. (Monopoly)
4. Super Bank advertises it has better service. (Competition)
5. Grey's Market has a sale on chickens 1 cent below wholesale. (Competition)
6. Striped Cab Company provides the only cabs to pick you up at the airport. (Monopoly)
7. You want to fly to San Francisco. You choose PSA because you like to see planes smile at you. (Competition)
8. You are hungry for a hot dog. You choose Bark Bark because they are the yummiest. (Competition)
9. Your plant needs scronk gears for manufacturing Breezels. They are sold only at Scronk Gear Store. (Monopoly)
10. General Oil, National Oil, and Super Oil are the only three oil companies in the country. They agree to sell oil for no less than $40 a barrel. (Monopoly)
11. Sunny Gas Company sells gas at the same price as Nice Gas but gives away free American flags with every fill up. (Competition)
12. If the same item is found at different places at different prices, this is what kind of situation? (Competition)
13. If a store advertises that its goods are better than another store's goods, this is what kind of situation? (Competition)
14. If there is only one manufacturer of a good, this is what kind of situation? (Monopoly)

Questions for Second Base

Directions: The player will state whether the answer tends to indicate a monopolistic or competitive situation. The player will then give the reasoning behind his/her choice.

1. Knitted hats at a street sale. (Competition; an easily entered market)
2. Ted is selling Gleps for $2 each. Alice starts selling Gleps for $1.50. (Competition; competing for sales by lowering prices)
3. Nice Bank and Solid Bank both offer loans at 5 percent. Nice Bank is very friendly and efficient. Solid Bank is rude and makes you wait in long lines. You go to Nice Bank for a loan. (Competition; better service)
4. You want a Dandergast. There are no "good" substitutes for Dandergasts. You can only get a Dandergast from the General Dandergast Manufacturing Company. (Monopoly; there is only one manufacturer producing the item.)
5. Yummy Food Store changed its hours, 9:00 a.m. to 5:00 p.m., to 6:00 a.m. to 11:00 p.m., when the all-night Munch-Um store moved across the street. (Competition; a change in service)
6. Jon, Sue and Al are the only barbers in town and talk together. The next day all their haircut prices rise to $3.50 for a trim. (Monopoly; agreed upon a set price above market)
7. Your telephone has lots of irritating static. You complain but nothing happens. You are stuck, as Ding Dong Telephone Company is the only telephone company for your area. (Monopoly; only one supplier)
8. Ocean Drugs, Sea View Drugs and Corner Drugs combine into "The Drug Store," the only drug store in town. (Monopoly; merger to eliminate competition)

Questions for Third Base

Directions: The player will correctly spell the word, define it, and give either a real-life or made-up example to indicate that (s)he really understands what the term means.

1. Collusion or cartel. (Suppliers or sellers of a good join together, usually secretly, and agree to charge the same price over and above the market price.)
2. Advertising. (To call buyers' attention to or arouse buyers' desire for a particular item.)
3. Predatory practices. (An action by a competitor that tries to eliminate existing sellers so that the store can later set the price above current competitive levels. Often, sales below cost [below operating costs] drive a competitor out of business.)
4. Competition. (No one has sufficient control over the supply of a good or service to enable him or her to influence price to his/her advantage.)
5. Monopoly. (Exclusive control of the use, sale or distribution of a commodity or service by one person or group of persons.)
6. Merger. (Any form of fusion, integration or "get together" of independent companies which brings them under unified control.)
7. Trust. (A few companies or corporations formed to control a given market. The trust is usually strong enough to control prices by suppressing or disregarding competition.)

Questions for Homeruns

Directions: The player will classify a statement as "tending toward competition" or "tending toward monopoly," indicate why (s)he classified it as such, and then indicate how the condition could be changed to the opposite condition by giving an example.

1. Flyaway Airlines has the only flight from Tallahassee to New Orleans. (Monopoly; it controls the market as the only supplier of that service. Could change government regulations to allow other airlines to fly that route or in some other way get another airlines to fly that route.)
2. Good Gas and Great Gas are very large gas companies.

They temporarily agree to sell gas at 10¢ a gallon below their cost in order to drive Cheap Gas Station and Economy Gas Station out of business. (Monopoly; this is referred to as predatory tactics [it is not necessary to use the term], as it is interfering with the market and competitive pricing of gas. The cheap gas stations can offer better service to compensate for the lower price, offer games or some other service, or can have a Government Regulatory Agency decide that this is a monopolistic action [usually very difficult to prove] and prevent it from continuing.)

3. William Tell Arrow Company buys up all the turkey feather supplies for the year and offers to sell Robin Hood's Straight Shooters Manufacturing Company feathers for 50¢ above what they paid for them. (Monopoly; taking control of sources of supply and either not letting competitors have supplies or, in this case, selling them at extremely high prices. Robin Hood's Company can find other materials to use in place of feathers or in some way develop a situation where their arrows will still be of value to the buyers, or a government agency could step in and stop the monopoly action.)
4. You love to be with children but cannot teach them because you have to have a teaching credential. (Monopoly; there is limited entrance into the teaching profession, and licensing exists. There isn't really much you can do except teach in situations where licensing isn't necessary [i.e., Sunday schools, tutoring], or eliminate licensing laws. Everyone is also free to obtain a license by fulfilling the qualifications.)
5. True Tread Tire Co. has a sale. Rubber Tire Co. advertises one too. (Competition; advertising and lowering prices. They could merge or join together and agree on a set price [collude].)
6. Happy Sam's Auto, Friendly Fred's Auto, and Otto's Auto advertise and give out prizes and stay open long hours. (Competition; offering lower prices, more services. They could agree on a price, merge into one company and raise prices.)
7. Chan's Chinese Checker Manufacturing Co. and Wong's Chinese Checker Manufacturing Co. both advertise the best checker game available at the lowest prices. (Competition; they could agree on price, merge into one company, or one company could buy up all the available marbles and refuse to sell to the other company or sell at very high prices.)

Follow-up Activities

One method of determining the concepts which may need reteaching or clarification is to have the referee collect all the questions missed during a game. The teacher can then review those questions and reteach the concepts found to be most difficult.

IV. Evaluation

1. Give two different situations which would indicate that a monopoly or monopolistic practices are at work. (*Possible answers:* Agreeing on price [collusion]; absorbing competitive firms [mergers]; controlling the supply or raw-material market and not selling to competitors or if so, at very high prices; licensing or limited entry markets; lowering prices below cost to drive competitors out of business [predatory tactics].)

2. What are two elements which might indicate that a competitive situation exists? (*Possible answers:* advertising based on comparisons; bargain sales; many possible substitutes for buyers; better services offered; higher quality goods offered; no one store can influence prices)

3. Mark each statement. Put a "C" for a competition situation, or an "M" for a monopoly situation.

(C)____ We have the best prices in town.
(C)____ Our bank is friendlier.
(M)____ There is only one steel manufacturing company.
(C)____ Vegetables are fresher at Fred's.
(M)____ The only telephone service is Clang's.
(M)____ The only store in town has good service and excellent goods.
(C)____ We give better terms, lower prices.
(M)____ You can teach only with a credential.
(M)____ Stoves are all $346.72 at every store.
(C)____ We stay open longer than any other grocery store in town.

II. Units

The Cool Card Company

I. Description of Concepts and Rationale

In order to help the children to gain knowledge of some basic economic concepts regarding the American market system, children from two classrooms organized a company, produced a product, and sold it to demanders. The product was note cards, and the market consisted of adults in the neighborhood as well as individuals from the school. Since the main purpose of this instructional sequence was to focus primarily on the concepts of scarcity, opportunity cost, property, demand and supply (and, to a lesser extent, money), it was decided by the class to utilize the profits of the company to purchase something for the whole school. A detailed description of these concepts is included in the Overview of this volume.

The following is a summary of economic concepts and principles that can be illustrated through this project (unit):

1. All families want shelter, food and clothing, and also want other goods and services, but few can purchase all they would like.

2. All societies, primitive or modern, large or small, face the problem of how best to use limited resources to satisfy wants of almost unlimited magnitude, as well as how to distribute the goods produced.

3. Individuals must make choices in meeting their needs. These choices are dependent upon individual tastes, preferences and purchasing power, and on alternate products available.

4. People who specialize in an industrial society must depend upon each other for most of their goods and services.

5. Specialization enables increased production and improved use of resources.

6. Under competitive conditions in a free economy, entrepreneurs may go into profitable areas to improve their economic position.

7. Higher prices may force consumers to buy less of a product or to choose a substitute.

8. Everyone is a consumer in society. An individual consumes goods that (s)he produces or that other members in a society produce. While everyone is a consumer, not everyone is a producer.

9. Our economy is based on the right of the individual or groups of individuals to own their own property and dispose of it, to accumulate capital and to seek economic gain—within certain limitations.

10. Americans believe that individuals should be free to enter into business and to produce whatever they want if legal and not harmful. They are free to work alone or to form partnerships or corporations in an attempt to win the consumers' dollars.

11. In the American economy there are great motivators to make the best possible use of human and natural resources. These motivators are basically profit, position and status.

12. Competition arises when there are many buyers and sellers of a product, and no one of the sellers or buyers can gain control over the price for which the commodity sells.

13. In a private-enterprise economy the producers are guided in their production decisions by observing the prices which reflect the buying decisions of the consumers.

14. As producers compete for the market, they continually seek more effective use of resources, increasing efficiency in production.

15. In producing goods and services, the modern economy uses money as a medium of exchange, measure of value, and store of value.

16. Banks provide safe places to deposit funds and convenience in handling funds.

17. Money in the form of profits or savings is necessary for the purchase of capital goods.

18. When capital is not available for the purchase of production supplies, credit may be extended by banks or other lending agencies.

19. Specialization helps people to do their work faster and better.

20. In every home there is work to be done. The family divides the labor.

21. Division of labor and specialization increase production and provide more leisure time.

22. Some workers produce goods. Some workers produce services. A worker producing just one kind of good or service is dependent on other workers to buy his or her product and to produce other products (s)he wants or needs.

23. Division of labor and specialization to increase production is one way to use people's knowledge, interest, ability, and size to advantage.

II. Objectives

1. The students will be able to explain why people must make choices in determining what to buy in the light of limited resources and unlimited wants. (Scarcity)
2. The students will be able to explain why the real cost of buying a specific good is the value of the next best alternative foregone—what else they could have done with the same amount of money. (Opportunity cost)
3. The students will be able to explain why, in deciding what and how much to produce, companies must consider the demand (wants backed by the ability to pay) of consumers as well as the costs of production. (Demand and Supply)
4. Students will be able to explain why higher prices may result in consumers buying less of a product and/or choosing a substitute. (Demand)

5. Students will be able to explain how the profit motive works to encourage producers to make the most efficient use of human and natural resources. (Private Property, Efficiency)
6. The students will be able to explain that credit is one way to obtain money for the production of goods and services. (Money)
7. Students will be able to explain why the following economic concepts are true:
   a. Specialization helps people to do their work faster and better.
   b. In every home there is work to be done. The family divides the labor.
   c. Division of labor and specialization increase production and provide more leisure time.
   d. Some workers produce goods. Some workers produce services. A worker producing just one kind of good or service is dependent upon other workers to buy his or her product and to produce other products (s)he may want.
   e. Division of labor and specialization to increase production is one way to use people's knowledge, interest, ability and size to advantage.
   f. Mass-produced goods can be made at lower unit cost.

III. Directions and Instructional Sequence

Room Arrangement and Materials

Background Information — List of economic concepts which can be developed in this project. (Scarcity, opportunity cost, property, supply and demand)

Proposed Budget — Anticipated expenses presented to the "wholesaler."

Letter from Director of Curriculum — A copy of the letter received by the company advising that a business license has been issued.

Business License — This is a copy of the license issued.

Note of Receipt — A copy of receipt from Northmont Principal acknowledging 40¢ paid for rent of brayers.

Gift to Company — Copy of the note from the Northmont principal giving the company 40¢.

Receipt for Payment for Supplies — This is a copy of the receipt the Card Craft Corp. representative sent the children when they paid for their supplies.

Sequence of Activities and Procedures

On the first day of our project we asked the children to draw "dream clouds" of all material things they would like to have. Following this, we discussed what wants might be attained and those which were unlikely to be attained. By the end of this discussion, the children could see that all people have needs and wants, but because of limited resources, probably no family or society would be able to satisfy all their wants.

Once they could verbalize this, they could quickly grasp the idea that one must make choices as to how to spend one's limited resources. If resources were to be used to buy product A, they could not then be used to buy product B. The real cost to the buyer was the value of the foregone alternative. Thus, we briefly discussed the idea of opportunity cost—what we are giving up each time we make a spending decision. We then introduced the idea that we might engage in a profit-making business venture in order to buy something for the school. The idea of the production of note cards was accepted by the children. After a great deal of discussion about what we might buy for the school (suggestions ranged from buying erasers to installing a swimming pool), the children decided that it was impossible to make any decision until they knew what their actual profit would be.

We then informed the children that we had arranged for a trip to the 7-Up Bottling Company, so that we could see first hand the various operations of a big producer. Since a number of children had gone through various plants in the city (bakery, clothing manufacturer, etc.), they were able to come up with such ideas as the fact that we should look for assembly lines, division of labor, use of machines, inspection points, etc. We made the trip, and it was highly successful in that the children came away completely convinced that division of labor, specialization, standardization, and assembly-line production resulted in greater production of the product at lower cost per unit.

Organizing for Production

The following session was spent allowing each child to produce his/her own note card. All children designed concurrently, limited only by the materials we provided: water-soluble ink, construction paper, potatoes for a print, and brayers for putting ink on the paper. Once these cards were produced, the children assembled and discussed such things as the variation in quality of the cards and the length of time it took to produce each card. Some students pointed out that the difference in quality was not necessarily undesirable, because the better ones, being hand-made and creatively designed, were works of art and worth a lot more money. It was generally agreed, however, that if the children best at cutting potato designs or spreading ink did those jobs and the others did work requiring less creative ability, they could produce a greater number of cards of high quality.

One of the students who had always been an academic failure then raised the point that someone was going to have to decide who did what jobs and which cards were going to be produced. With no teacher leadership whatever, the pupils decided that their company must have leaders and that those leaders would have to pick committees to make certain decisions and to do certain jobs. They proceeded to elect a president, secretary and treasurer. The president then appointed a committee to choose the four best cards, which they could duplicate in their production. That same day the committee made their selections, and, in general, the children felt they were ready to go into full-scale production.

When they met the next day, however, they discovered that they had no supplies to begin production. The question was raised as to why we couldn't just use school supplies. However, they reached the conclusion that if they were to be an independent, profit-making company, they would have to pay their own costs. An interesting discussion followed as to how the money might be raised to buy the necessary supplies. Suggestions were made that each member of the company might lend money with the expectation of collecting interest when it was repaid. One child thought we should borrow money from a bank. The "academic failure" who had contributed before noted that he had an uncle who owned a small store who got his supplies on credit and paid for them after he had made enough sales. As this was the type of financing we wanted for this project (our school is in a financially deprived area, and we wanted to avoid embarrassment for those who could not bring in money), we then suggested that we knew an officer of the Card Craft Corporation who might be able to arrange to give us supplies on credit. A representative of the curriculum office agreed to pose as an officer of the fictitious Card Craft Corp. and came to talk to the children about the possibilities of selling supplies to them on credit. While she was with the students, she informed them that there were a number of things they must do before her company could consider extending them any credit. These included: (1) naming their company; (2) obtaining a business license; (3) obtaining letters of credit from responsible individuals who would vouch for the financial responsibility of the company; (4) obtaining a health certificate; and (5) determining the amount of rent which would have to be paid for the use of the school rooms as places of business. The Card Craft Corp. representative also advised the students that in case her company decided to extend us any credit, a 2 percent discount would be applied if the bill was paid on time. She also made it quite clear that her company was in business to make a profit. After she left the question was raised as to why we shouldn't go directly to the producers of the various supplies instead of paying extra to make money for the wholesaler. This led to an excellent discussion of the part of the wholesaler in our economy and the many reasons that all but the largest buyers usually find it more economical to buy from wholesalers.

Questions were then raised as to why a license and a health inspection were required, and, from the discussion which followed, the children gained some excellent understandings of the role of government in the control of private industry and the rationale for government regulation.

At the next meeting of the company, the president organized committees so that the wholesaler's requirements could be met. The children selected the name COOL CARD COMPANY. The secretary was directed to write a letter to the director of curriculum of the district to request a business license. It was decided that the letters of recommendation to insure the company's credit rating should come from the two most important people in our school. To these children there was no question but that those two were the head custodian and the principal (in that order). A committee was therefore appointed to ask these two to write letters to the wholesaler. A second committee was sent to the nurse to request a health inspection, and a third committee went to the principal to establish the amount of rent.

In due course a very impressive and official-looking license was sent to the COOL CARD COMPANY and displayed on the office bulletin board. The nurse inspected the rooms and gave us a health clearance. The principal agreed to rent the rooms at 2 percent of their net profit. And the Card Craft Corp. representative wrote that the company's credit had been found an acceptable risk by the wholesaler and they were ready to advance supplies.

Our next big project was deciding how many supplies we wanted. We made a list of materials and then calculated the amount. This was sent to our wholesaler. Shortly we were informed she could not supply us with brayers. The company decided to try to rent them from our school and other schools since buying them would have been expensive and they would have had to be disposed of after production. We rented these for $.08 per brayer per month, approved by the company.

Production and Sales

Finally, the company was ready for production. Thirteen assembly lines were set up, with each child performing his or her individual task; 260 cards were produced in seven minutes. One area we expected the children to have great difficulty with proved to be no problem at all—that of paint. When ordering supplies, the company did not take into consideration that paint would be needed on each assembly line but rather how much they would need to finish total production. We thought this would throw the children, but instead they passed paint from one line to another. During evaluation of the day's work, we asked if they felt they needed more paint. Some did, but others felt they would have paint left over at the end of production and it would cost them more money, so more paint was not ordered.

The second day's production was increased. Each line produced 30 cards in eight minutes. Evaluation pointed out that perhaps speed was costing us quality, as some of the cards looked sloppy. Also, since only half of our quota was completed, it was felt we were going to run out of paint. The company agreed to order more paint.

Production was completed on the third day, and the cards were strung across the rooms to dry.

A new assembly line was formed to put inserts in the cards, count the cards into stacks of ten, place envelopes with them, insert a sticker reading "COOL CARD COMPANY, Kempton Street School," and wrap the packages in Saran Wrap. One day of this assembly line and the cards were ready to be sold. The company set the price at $1.00 per package, and everyone started out to sell note cards to friends, relatives and neighbors.

Each child was given two packs of cards to sell. Unfortunately, the time set for selling the cards was concurrent with the time of the worst rain storms in 30 years. Nevertheless, by the end of one week $72.00 had been collected by the treasurer and half of the cards had been sold.

By the end of the first week it became obvious to the officers of the company that money was coming in very slowly, and a number of the children were returning their cards reporting that they could not sell them. The president therefore called a general meeting to discuss ways in which they might insure the sale of the remainder of the cards. At this meeting a number of possibilities as to why the cards weren't selling were discussed. Questions were raised as to whether all students were really trying to sell and as to whether individual sales ability was affecting sales. It was finally agreed that the main reason for sales resistance was that the price at which they had agreed to sell was actually much too high considering the market demand for the cards. After a great deal of argument, it was agreed to cut the price from $1.00 to $.50 per pack.

At this same meeting, the general membership of the company authorized their treasurer to pay all bills (except the rent which could not yet be determined) in order to take advantage of the discounts. This authorization was made with some reluctance as they were not anxious to let go of any of their "hard-earned" money.

At the lower price the rest of the cards sold quickly. The company treasurer reported that they had netted $88.00, of which $1.76 was paid for rent—leaving a net profit of $86.24. Now all that remained was to decide what to purchase with the money.

At the next meeting, the president appointed a committee to talk with the school principal about what they might purchase for the school with their profits. The following day the president called another general meeting. The committee reported that the principal had offered three possible ways in which the money might be spent; namely, help to pay for the printing of a handbook for parents, help the PTA to pay to build sheds to store carnival equipment, or pay to have professional musicians give a concert for the school. The company members quickly vetoed the first two suggestions on the basis that they had formed the company, produced and sold the cards in order to buy something which could be used by the children of the school, not the parents or the PTA. None of them showed any interest in paying for a professional concert; typical comments were, "We'd spend all our money for one assembly, and then we'd have nothing to show for it," or "If we want music, we can make our own."

It was then decided that the committee should talk to the custodian, who to the children is the real authority. At a meeting the next day, the committee reported that the custodian has suggested that the company might: (1) buy more bicycle racks; (2) buy such P.E. equipment as a shuffle board, a game not ordinarily provided by the district; or (3) buy each room a "rainy-day kit" consisting of inexpensive games which might be used during recess periods on rainy days, when the children had to stay in their rooms.

The members of the company decided that they did not have enough money to buy bicycle racks. They did not want to buy such games as shuffle boards, because not many children could use them at one time and fighting and arguing would result. They decided to accept the suggestion to buy "rainy-day kits."

Culminating Activity

As a culmination of the project, the students purchased enough games of various sorts to make rainy-day kits for every room in the school.

IV. Evaluation

1. Parents sometimes say "You can't have everything you want." Why must you always make choices among the things you want? The *economic* reason is:

a. So you won't be spoiled.
b. Because your parents aren't the richest on the block.
× c. Because resources are limited and wants are great.
d. Because children must do what their parents tell them to do.

2. If you were the richest person in the world you wouldn't ever have to make choices among the things you want. You could have everything you wanted.

True
× False

Why? (Criterion for correctness: Must include that resources are limited even for the richest person. Scarcity is still a fact. Wants outrun resources available.)

3. If all the owners of toy stores decided to give away some toys to specific children who wanted them, would toys probably still be scarce?

× Yes
__ No

Why? (Criterion for correctness: Definition of scarcity as limited resources versus relatively unlimited wants. Toys are limited and the wants of the children probably are greater than the available toys.)

4. Inez goes to the store with some money she has saved. She sees a great jumprope, a hulahoop and a doll. She wants them all but only has $2.00—just enough money to buy one of the toys. She decides that she wants the jumprope most and the doll second-most, so she buys the jumprope. What is the *real cost* to Inez of buying the jumprope?

a. The real cost is $2.00 because that's really how much she paid.
× b. The real cost is the doll because that's what she is giving up to buy the jumprope.
c. The real cost is both the doll and the hulahoop because she gave up both of them to buy the jumprope.
d. The real cost is that her friends will want to borrow the jumprope more than they would want to borrow a doll.

5. Shari loves to ski. Her parents pay $2.00 for a ski pass each time she goes. One day she wanted a new pair of tights, which were priced at $2.00. Her mother said, "The real cost or opportunity cost of getting the tights will be one ski pass." What did Shari's mother mean? (Criterion for correctness: That Shari would have to give up one ski pass in order to get the tights—the money price is a symbol for the value of the alternative foregone.)

Alternative form, multiple choice:

a. That the saleslady would ask Shari to give her one ski pass in exchange for the tights.
× b. That by spending $2.00 on tights, Shari would be giving up spending that $2.00 on a ski pass.
c. That Shari would not wear her new tights to go skiing because they would get wet.

6. You have 20¢ and go to a candy machine. You see:

__a chocolate bar
__a package of fruit jellies
__a box of malted milk balls
__a roll of mints
__a pack of gum

Put a '1' next to the one you would most like to buy and a '2' next to your second-favorite. What is the real cost to you of buying your favorite one?

(Answer: Child should name the item marked as second choice.)

7. Lucy decided to go into business and produce cupcakes. First she asked Snoopy and Charlie Brown and the gang if they would want the cupcakes she made. They all said they would. When she tried to sell the cupcakes, no one bought them. What did Lucy forget about "wants?"

(Answer: She forgot that wants must be backed by the ability to pay—that she hadn't asked how many they would buy at what prices.)

8. Now Lucy decides to make chocolate chip cookies. She carefully asks each of her friends how many cookies he/she would buy for 10¢ each and how many for 5¢ each. She decides to sell the cookies for 5¢ each because her friends would buy more. When the cookies are all sold and Lucy has paid for the flour, chocolate chips, and other ingredients, she has no money left. What did she forget to figure out?
(Answer: Her costs of production—how much the cookies would cost her to produce.)

9. June loves chocolate! Each day she buys one of her favorite chocolate bars, which cost 15¢ each. Yesterday the price of the bars went up to 20¢ each! She used to buy seven candy bars each week. Now she will only buy five. Can you explain why she made that decision?
(Answer: A decrease in quantity demanded at higher prices.)

10. Moe's favorite chocolate bar now costs 20¢ each instead of 15¢ each. At first he thought he would only buy five bars a week instead of seven. But his second favorite candy bar still costs 15¢ each. He decides to buy seven of *those* each week instead of only five of his favorite. Can you explain why he might do that?
(Answer: Higher prices may result in demanders choosing a substitute.)

11. George's piano teacher used to give lessons for $5.00 for one hour, and each day she gave six hours of lessons. Then she raised her price to $6.00 for an hour, but not enough people showed up each day to buy the six hours of lessons. Some of her students decided to take violin lessons instead of piano lessons. George doesn't understand why they don't like piano anymore. Can you tell him what probably happened?
(Answer: At higher prices the quantity demanded tends to go down and/or people choose a substitute.)

12. Carol makes greeting cards from colored paper and sells them to her friends. She pays 2¢ for each sheet of paper. She thinks about making round cards one day instead of rectangular ones. She can make two rectangular cards from each sheet of paper but only one round one. And if she makes round cards, she has all the edges of the paper left over. What is the economic reason why Carol might decide to keep making rectangular cards instead of round ones?
(Criterion for correctness: Must include that the "waste" is a cost to Carol and might decrease her profits.)

13. The Great Wood Lumber Company knows that it takes many years to grow big trees. They own land and pay people to plant trees and take care of them when they grow. When the trees are grown big, the company pays people to cut the trees down to cut into lumber for building. They used to cut down all the trees in one area at a time—big and little ones both—because it seemed easier. Some little trees weren't big enough to use for lumber so they just left them on the ground. Now Mr. Jones wants just to cut down the big trees and let the little ones keep growing. What is a possible *economic* reason for this?

a. Mr. Jones feels sorry for the little trees being cut down so early.
× b. Mr. Jones feels that if he lets the little trees grow, he can use them for lumber in a later year when they are bigger.
c. Mr. Jones thinks that his land looks ugly with all the trees cut down.
d. Mr. Jones read about ecology and feels badly about cutting down trees, so he thinks he will leave some of them.

14. Mrs. Rodriguez owns a bakery and hires two bakers, and two salespeople who only serve the customers. She notices that for most of the day Jim and Jean (the salespeople) have nothing to do but talk to each other. Other times of the day they are both busy helping customers. She tells Jim that during the times when he isn't busy with customers he should go help the bakers so they can do their work easier and faster, and produce more goodies for sale. Jean must stay in the front of the shop to help any customers who might come in. For what economic reason has Mrs. Rodriguez asked Jean to stay in front of the shop?

a. She doesn't like Jim and wants him to work harder as a punishment.
b. She thinks that Jim should learn more about baking and that Jean already knows about how to bake.
× c. She believes that since she pays Jim anyway he could help the bakers to make more bread and cookies without costing her any more money in salaries. Then she could sell more and make more profit.

15. George produces bean bags and is doing very well. All his bills are paid, but he only has enough cloth, thread, and beans to produce ten more bean bags, and won't have any more money till he sells those ten. Suddenly, a customer wants to buy 30 bean bags all at once! George could make the bean bags in two days if he had the materials. The customer wants all 30 at one time. George doesn't want to ask the customer for the money in advance. What would you advise him to do?

a. Tell the customer he can only sell him 10 bean bags.
b. Tell the customer he can sell him 10 bean bags now and after he is paid can sell him 20 more.
× c. Tell the banker or someone with money to lend that he wants to borrow enough money to make at least 20 bean bags and that he will pay it back after the customer pays.
d. Tell the customer that he just can't sell him the 30 bean bags at all.

16. Sue wants to give needlepoint lessons. She knows that she must get some supplies for her students to use: yarn, canvas and needles. She is willing to spend three hours of her time each day to give the lessons, but she doesn't have enough money to buy enough supplies to get started. Mrs. Green owns a shop that sells needles, yarn and canvas. Sue has bought things there before and Mrs. Green knows that Sue can needlepoint very well. Mrs. Green also thinks that Sue would be a good teacher. Can you suggest a way for Sue to get enough supplies to get her business started? (Hint: Mrs. Green might be able to help).
(Criterion for correctness: Secure supplies on credit. Extra: Based on her reputation and personal knowledge.)

17. It is springtime and Dan White wants to start a farm. He has land which belonged to his father and he is willing to work hard. Now he needs seeds and tools. He won't have any money until fall when his vegetables are grown and he can sell them. Dan goes to each of the two seed-and-tool stores to get an idea of how much money is necessary in order to get the amount of seed and tools he wants. At each of the stores, he tells the owner his problem. In the first store, the owner says, "I'm sorry but I can't help you." In the second store, the owner says he will give Dan "credit." What does the owner mean?

a. He means that he thinks Dan is a hard worker and should be proud of himself.
× b. He means that he will let Dan take the seeds and tools now and pay for them in the Fall.
c. He means that he will ask other farmers to lend Dan some seeds and tools for a while.

What is an economic reason that the store owner might say that?
(Answer: Dan seems a good risk. Also Dan is a possible future customer.)

18. Judy and her family are considering moving to the country and trying to "live off the land." They want to grow all their own food and weave all their own cloth. Write a paragraph telling at least three economic reasons why most people in our country do not grow all their own food and weave all their own cloth.
(Possible answers: See Objectives: 7 a-f)

Sample

COOL CARD COMPANY TREASURER'S REPORT (PROPOSED BUDGET)

380 sheets of construction paper, $.433 per 50	$ 3.29
25 tubes of ink @ $.25	6.25
1,440 envelopes	5.58
2 rolls of Saran Wrap @ $.27	.54
2 reams of typing paper @ $.797	1.60
Rental of brayers from Northmont School	.40
Rental of brayers from Kempton School	1.52
Potatoes	.30
Total anticipated expenses	$19.48

Sample

December 19, 1975

Mr. Frank Hofstee, President
Cool Card Company (proposed)
Kempton Street School
Spring Valley, California

Dear Mr. Hofstee:

This is to inform you that your request for a business license has been received by my office. Further investigation will be necessary before it will be possible for this office to issue such a license. I have been in contact with Mrs. Lehew, who indicates to me that your organization appears to understand its obligations.

You will hear from me after you return from the Christmas holidays.

Sincerely,

Dr. K. Boyd Lane
Director of Curriculum

il

cc: Mrs. Lehew
Mr. Jacobs
Mrs. Miller

Sample

January 6, 1976

Mr. Frank Hofstee, President
Cool Card Company
Kempton Street School
Spring Valley, California

Dear Mr. Hofstee:

The investigation of your business license has been completed. I have affixed my signature to your official license which you are expected to display for public view.

I wish you every success in your new business undertaking.

Sincerely,

Dr. K. Boyd Lane
Director of Curriculum

il

enclosure

cc: Mrs. Lehew
Mr. Jacobs
Mrs. Miller

Sample

KEMPTON SCHOOL CLASSES

Doing Business as . . . . .

Cool Card Company

*ALL REQUIREMENTS FULFILLED
AS OF JANUARY 5, 1978

*LICENSE EXPIRES
JANUARY 5, 1979

Sample
Records of Transactions

Received 40¢ for use of Brayers from Mrs. Miller's Class at Kempton School.

Mr. Cockenour
Principal

Please accept 40¢ from the Northmont School as a gift for greater learning. I'm impressed.

Mr. Cockenour
Principal

Reinforcing Economic Concepts Through Cartoons

I. Description of Concepts and Rationale

Students face the "need" of reacting in an economic sense to the problems of an economic world. They perceive that soft drinks, candy, toys and clothes purchased cost more today than they did last year. In many cases they do not understand the forces that are creating the pressures on their parents' and their own pocketbooks. They are beginning to understand that the decisions they make are affecting the marketplace. Yet they frequently adopt the biased and unthinking views of friends, neighbors or parents as they listen to commentaries about economic problems.

The following unit will teach students to deal in an analytical and critical way with economic commentaries made by political cartoonists. The children will study basic cartoon symbolism as a prelude to examining economic thought in cartoons. Exercises in simple interpretation will involve students more deeply. Finally the students will examine economic concepts in cartoons in the light of their previous economic study. They will develop critical attitudes toward the simple views frequently presented in cartoons.

The unit program can best be used after students have learned basic economic concepts. It will probably be most successful with gifted students although most students can become involved at varying levels of interpretation. To receive the most benefit from the review, students should be able to understand and use the circular flow diagram. It has worked best as a review tool and a stimulus towards enabling the student to become an economically literate person. If youth are to internalize economic thought processes, the teacher must have many different ways to reinforce economic concepts. Using the cartoons as illustrated in this unit is one excellent way to review throughout the year. New cartoons bring up economic concepts previously taught and can be used for frequent review.

The material contained in the following pages is just a sample of what can be done. The exercises shown may be used in their present form or may be revised to fit individual teacher needs. To make the unit work optimally, the teacher may wish to collect several additional cartoons.

Economic Concepts that Can Be Found in Political Cartoons

scarcity	limited resources versus relatively unlimited wants
opportunity cost	the real cost of any economic choice is the value of the next best alternative use of that resource
economic choice	society must make choices as to how scarce resources are used
economic systems	methods used to determine how the three basic economic questions are answered: What to produce? How to produce it? Who will get the output?
supply	the amount of a good or service producers are willing to offer at alternative prices (per unit time)
demand	the amount consumers are willing to buy of a good or service at alternative prices (per unit time)
monopoly	one seller of a commodity
inflation	a rise in the average price of currently produced goods and services
fiscal policy	the use of the federal government's taxing, borrowing and spending powers to counteract recessions and inflation
monetary policy	the influence of the Federal Reserve over the lending ability of commercial banks

Economic Ideas Found in Political Cartoons

The following economic ideas have been found in cartoons over the years. Others can also be found.

1. How we use our resources depends upon our values.
2. What one group of people does in an economic system may affect all other people in the economic system.
3. The Soviet Union's economy is a planned economy, the government deciding what and how much is produced.
4. When we purchase something on credit there must be a repayment.
5. Everything that we do has a cost. The cost is the value of the alternative foregone.
6. Business passes increased costs on to the consumer in order to make a profit.
7. The United States is an example of a mixed economy; the government partially controls economic decisions.
8. Some of our economic problems are caused by low productivity.
9. If wages rise faster than the level of productivity, problems such as inflation could occur.
10. The three basic economic questions that any society must answer are:
    a. What is to be produced?

   b. How is it to be produced?
   c. Who gets it after it is produced?

11. In a market economy, if the consumers do not want what is being produced, companies will begin to produce what the people want.
12. Whatever government buys for us now must someday be paid for.
13. Every society faces a conflict between unlimited wants and limited resources.
14. If people consume all that they produce, they will not have anything left to use to produce more.
15. In a market economy producers will tend to produce more of a product at a higher price.
16. In a market economy producers will tend to produce less of a product at a lower price.
17. People will generally buy more of a product at a lower price than at a higher price.
18. People will generally buy less of a product at a higher price than at a lower price.
19. In a market economy the price of a product will go up as the demand for that product increases.
20. In a market economy the price of a product will generally go down as the demand for that product decreases.
21. How we feel about the economy has a great effect upon the economic system. People's opinions can cause economic activity to go up or down.
22. The consumer's ability to borrow can influence whether or not s(he) can buy new things, particularly large items like homes.
23. If the government spends more money than it takes in in taxes, it has a deficit or goes into debt.
24. When there is a slow-down in one part of the economy, other parts of the economy are affected.

II. Objectives

Objectives of this unit range from the lower cognitive skill of memorization to the more complex skill of interpretation. The students will memorize basic symbols found in cartoons. They will learn to interpret the meaning of the cartoons and to analyze the economic thought behind the cartoons. The teacher will motivate a change in the habits and attitudes of students in attempting to interpret cartoons. Also, students will become more aware of cartoons and will spend some newspaper-reading time on the editorial page.

1. Given the descriptions of 19 cartoon symbols as shown in actual cartoons, the student will identify 17 out of the 19.
2. Given three cartoons showing economic problems or policies, the student will be able to describe verbally the economic concept that was illustrated.
3. Given a list of possible economic concepts from which to choose, the student will be able to identify 80 percent of the economic concepts found in representative cartoons shown to them.
4. On an attitude survey, 80 percent of the students will indicate that they are more actively looking at the cartoons in the newspaper than they were before the unit.
5. On a follow-up survey sheet 80 percent of the students will indicate that they are able to interpret more of the cartoons they see than they were prior to the unit.

Symbolism in Economic Cartoons

Uncle Sam	United States
Richard Nixon	Ex-President
Gerald Ford	Ex-President
Jimmy Carter	President
Pig	selfishness
Hammer and Sickle	Communism, Soviet Union
Rising Sun	Japan
John Q. Public	consumer, voter, average person
Empty bowl	shortage, scarcity
Oil pipe	oil problems
Bear	declining stock market; also Soviet Union
Bull	rising stock market
Globe	world
Fat person	selfish, using too much
Dove	peace
Eagle	United States
Buzzards	death or something bad
Turtle	something slow
Snail	something slow

III. Directions and Instructional Sequence

The teacher should have started a collection of political cartoons from which various issues may be drawn. Posters involving concepts could be placed on bulletin boards to interest the students. Students then could be asked to begin making a collection of cartoons to add to a file of topics. Simple collecting will cause some students to develop an interest. Other students can be further motivated by having them enlarge selected cartoons or symbols freehand or by using the opaque projector. As students become involved in creating the unit, interest will probably increase.

The teacher can set the scene for this unit by enthusiastically introducing the students to several political cartoons. The cartoons can be from this unit or gathered from local newspapers. The latter may more accurately reflect current events. Teaching the 19 simple symbols in the list will initially attract many students and enable them to begin interpretation of the cartoons.

After discussing the symbols with the teacher, the students should try to interpret some of the cartoons. The children's willingness to try to interpret more difficult cartoons will be stimulated by their having some success in explaining simpler cartoons. The teacher should be supportive of differing viewpoints. The teacher may wish to divide the class into small groups to discuss the cartoons and to report their opinions to the class as a whole. Often a group of four to five students, by combining their intelligence, is able to interpret analytically cartoons that they might have had difficulty in interpreting on an individual basis.

The teacher should also discuss why artists draw cartoons. The cartoons focus on and increase awareness of current problems. The artist presents visually one viewpoint. By using symbols the artist attempts to grab the reader's attention. Readers then are able to respond in agreement or disagreement to the ideas shown in the cartoon. The cartoons also add a touch of humor and lightness to the editorial page of the newspaper.

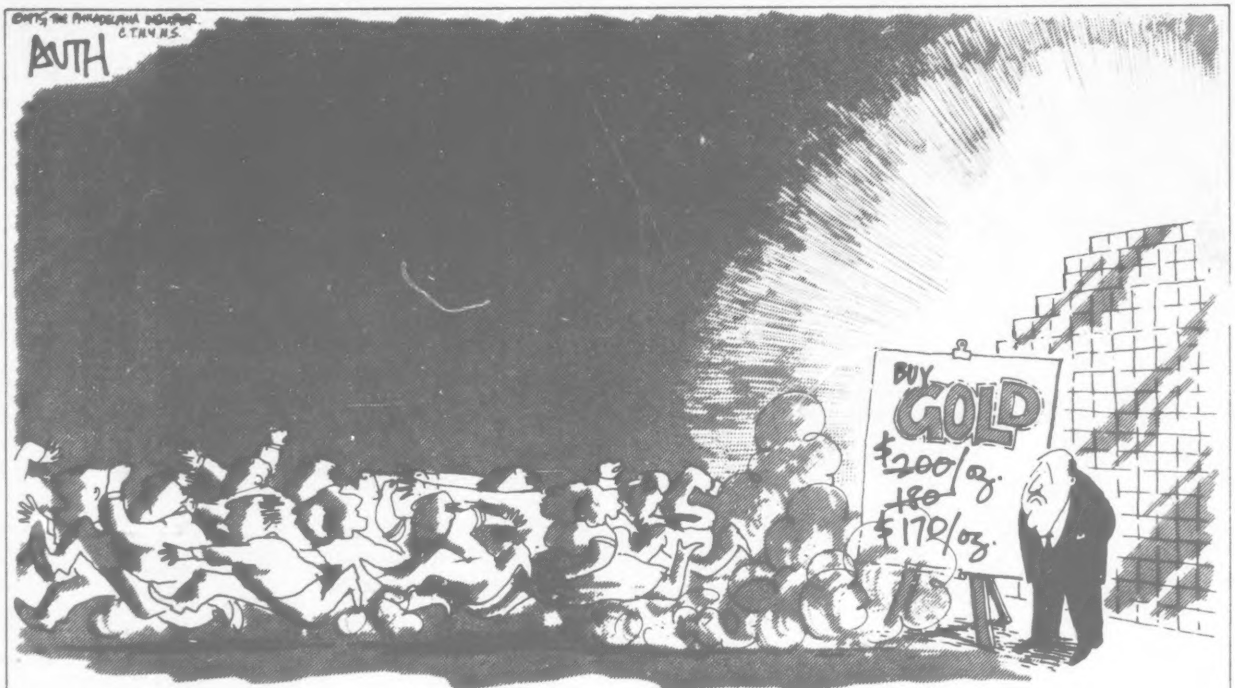
Next, the teacher should give the students the list of 19 symbols along with their meanings. The students should memorize the basic symbols to insure future success in interpreting cartoons. The memorization could be accomplished by breaking students into pairs for drill or through a concentration game.

Since the purpose of the unit is to involve students in interpreting economic thought as expressed in the newspaper, an effort should be made to encourage the students to interpret the cartoons as they appear in the newspaper. Students could be asked to cut out the cartoons, discuss them with their parents, and bring them to class to add to a classroom file. As the class file grows, a bulletin board display of cartoons should be arranged.

To interest slower students the teacher could allow them to enlarge cartoons using the opaque projector. Creative students can be challenged to draw their own cartoons, using learned symbols or even asked to create their own symbols.

After a few days of teaching interpretation, the teacher can introduce cartoons involving economic concepts. Using previously learned economic concepts and cartoon symbols, a systematic and consistent review of economic concepts can be conducted. For example, students will repeatedly explain the circular flow diagram if a variety of stimulators is provided. Students could be preparing to interpret a cartoon projected onto a screen concomitant with roll call. It is hoped that the students will internalize economic concepts and relate them to future situations as their experience in interpreting cartoons is increased and their skills are refined.

Before beginning the unit, see Evaluation section on page 96.


©1975, The Philadelphia Inquirer C.T.N.Y.N.S.
AUTH
BUY GOLD
$~~200~~/oz.
~~180~~
$170/oz.

Gold Rush

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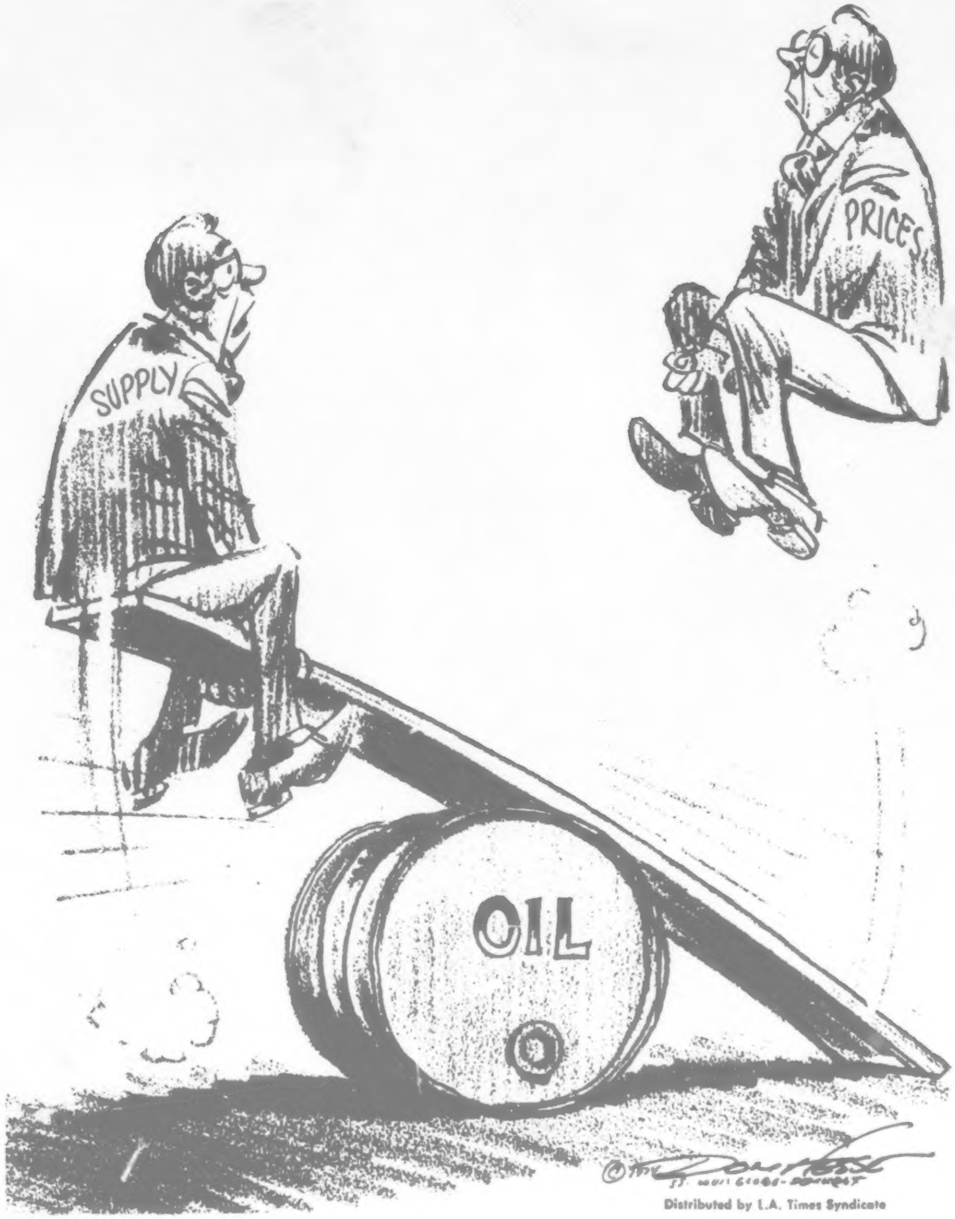
Reproduced by courtesy of Tony Auth.

Background: Since the 1930's the United States government has bought all gold in the United States for prices set by the government. In 1975 gold was allowed to be sold in the free market for the first time in many years. The world price had skyrocketed. Some thought that when gold went on the free market in the U.S. the price would go even higher.

Symbolism: What do the brick-like objects at the right represent?
Who is the man in the black suit?
Who are the people running away?

Interpretation: What is happening to the price of gold? Why?
Which principle of supply and demand is represented in this cartoon?

'THAT'S FUNNY – HE'S SUPPOSED TO COME DOWN'


SUPPLY
PRICES
OIL
©1974 DON HESSE
ST. LOUIS GLOBE-DEMOCRAT

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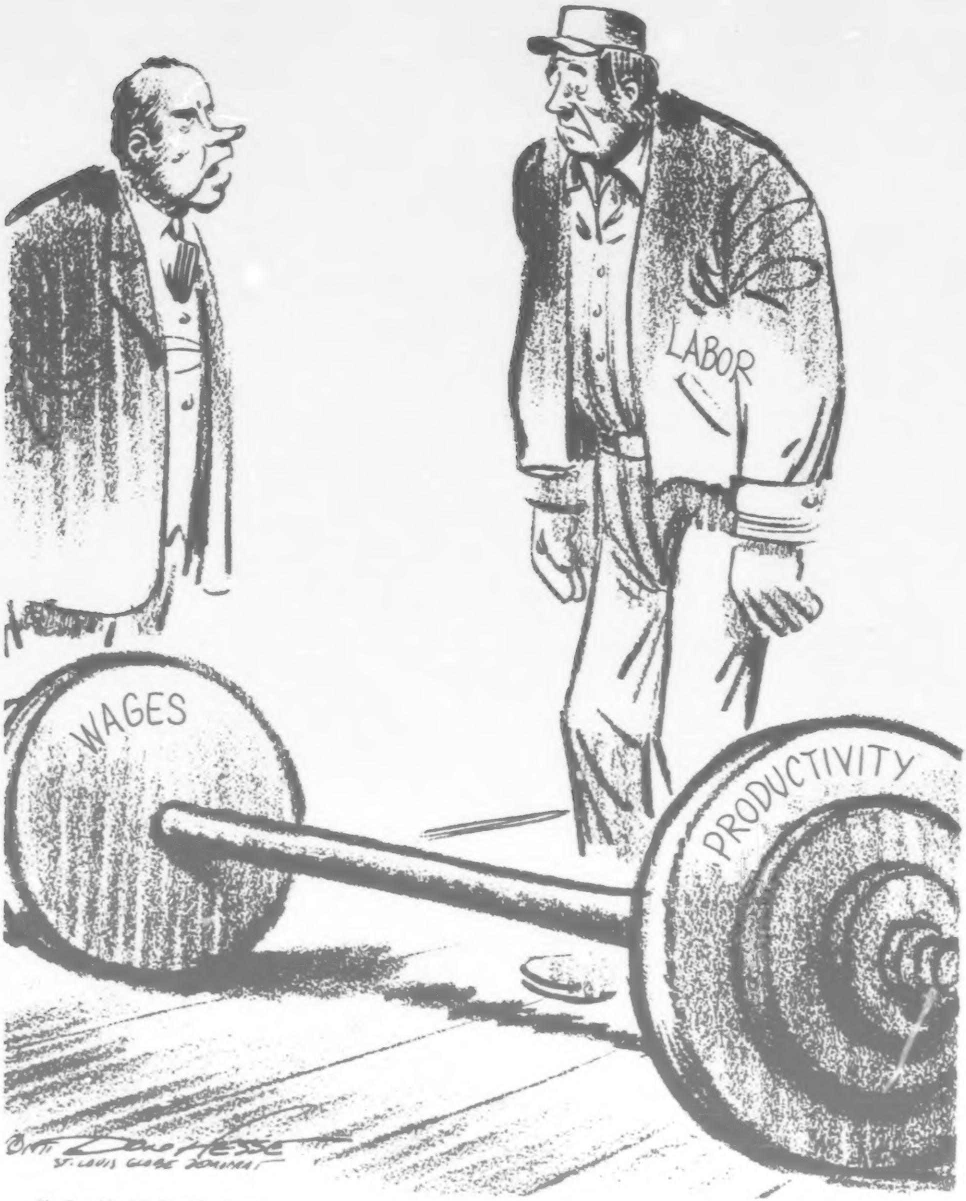
Symbolism: What does the barrel represent?
What does the figure on the left represent?
What does the figure on the right represent?
What does the teeter-totter represent?

Interpretation: Why is the artist surprised that the price of oil has not come down?
Which law of supply and demand is being broken?

'The Idea Is to Raise 'Em Both at the Same Time'


LABOR
WAGES
PRODUCTIVITY
©71 Don Hesse
St. Louis Globe Democrat

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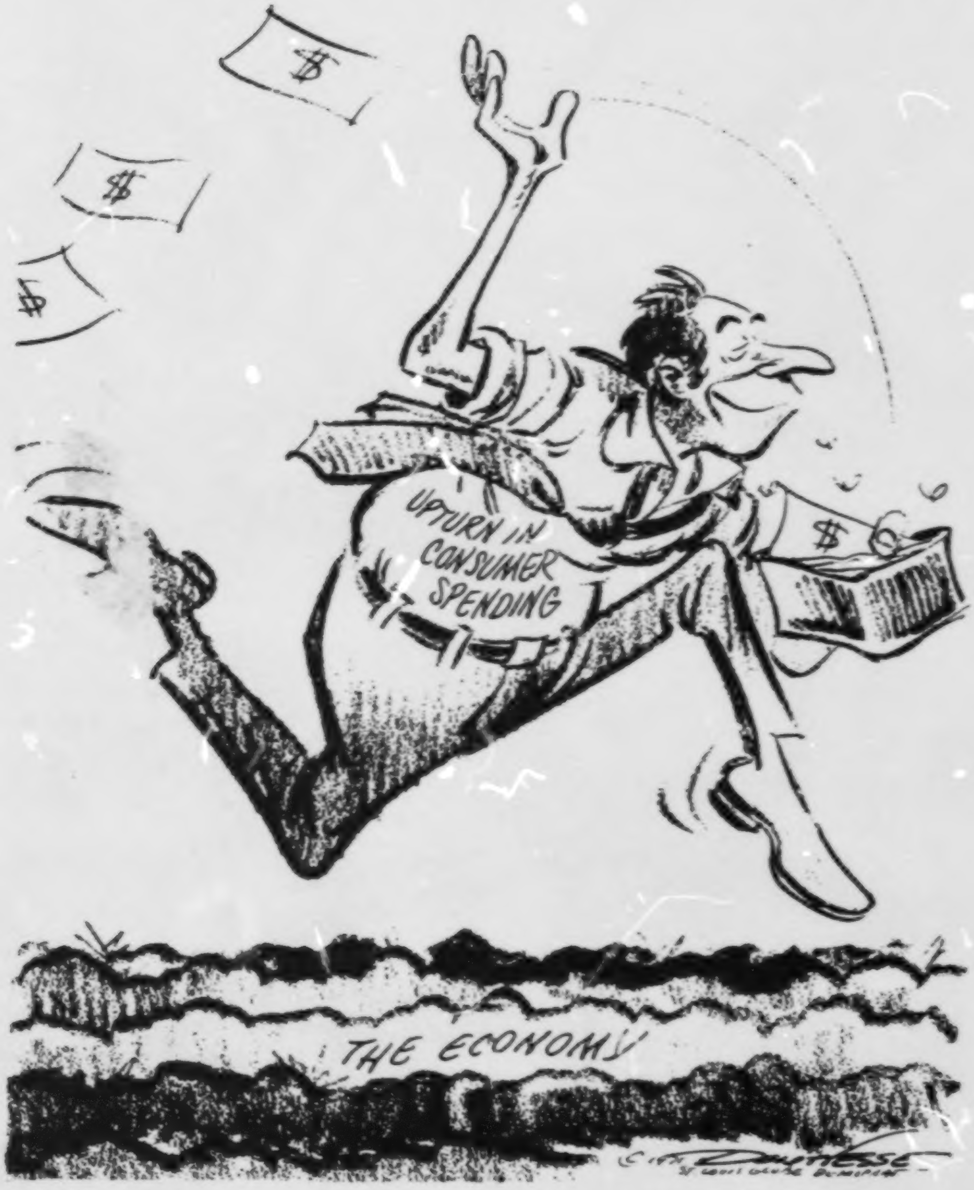
Symbolism: Who is the figure at the left?
What do the two ends of the barbell represent?
Who is the man that will try to lift the barbells?

Interpretation: Why is it important to lift both productivity and wages together?

Using the circular flow diagram show what would happen if wages were raised to a higher level and productivity stayed the same.

Spring Planting



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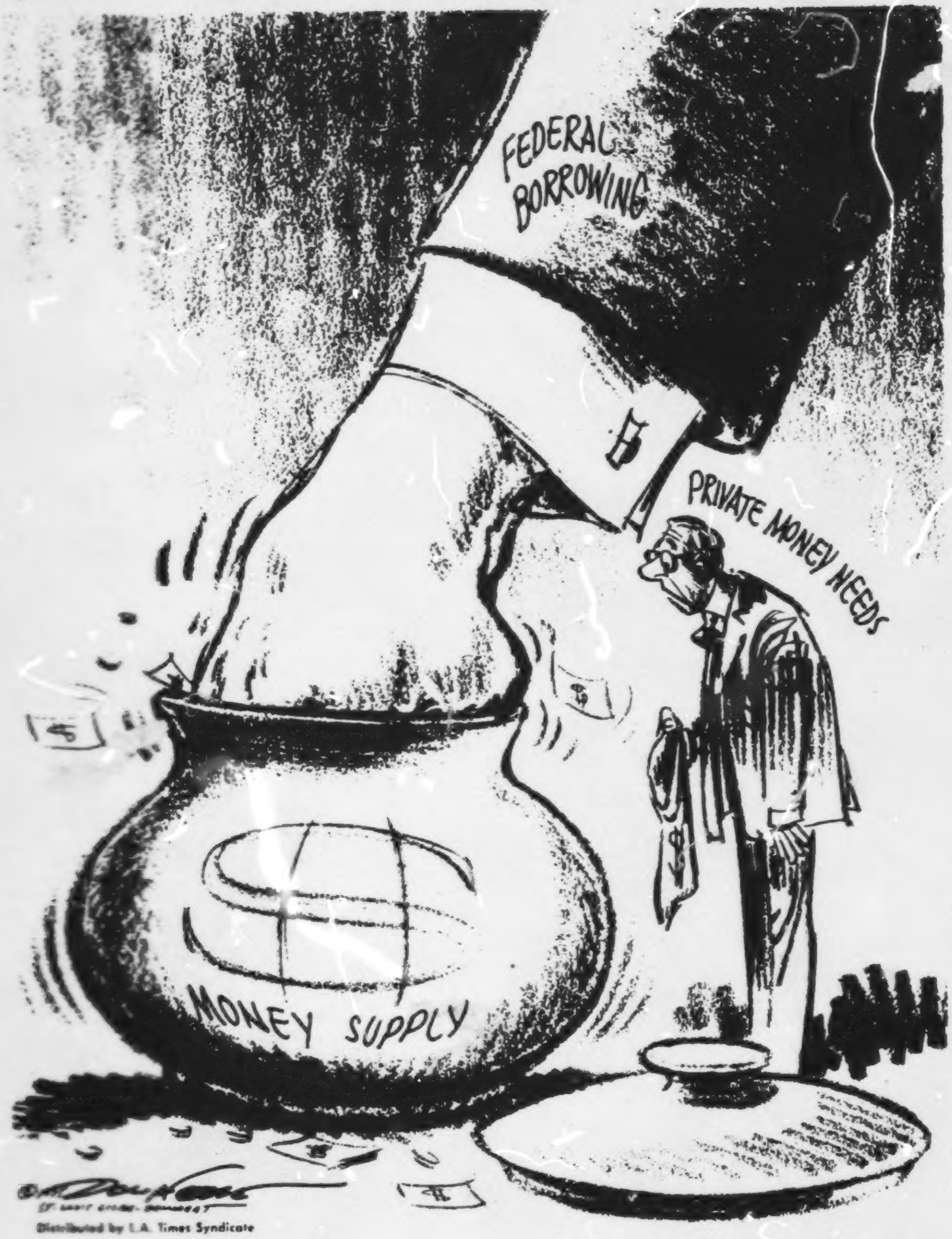
Symbolism: What does the ground represent in the picture?
Who is the person in the cartoon?
What is he throwing behind him? What would this represent in the economy?

Interpretation: A farmer plants in the spring to harvest in the fall.
Using the circular flow diagram, explain what would happen if the consumers were to start spending lots of money.

HOG IN THE COOKIE JAR


FEDERAL BORROWING
PRIVATE MONEY NEEDS
MONEY SUPPLY
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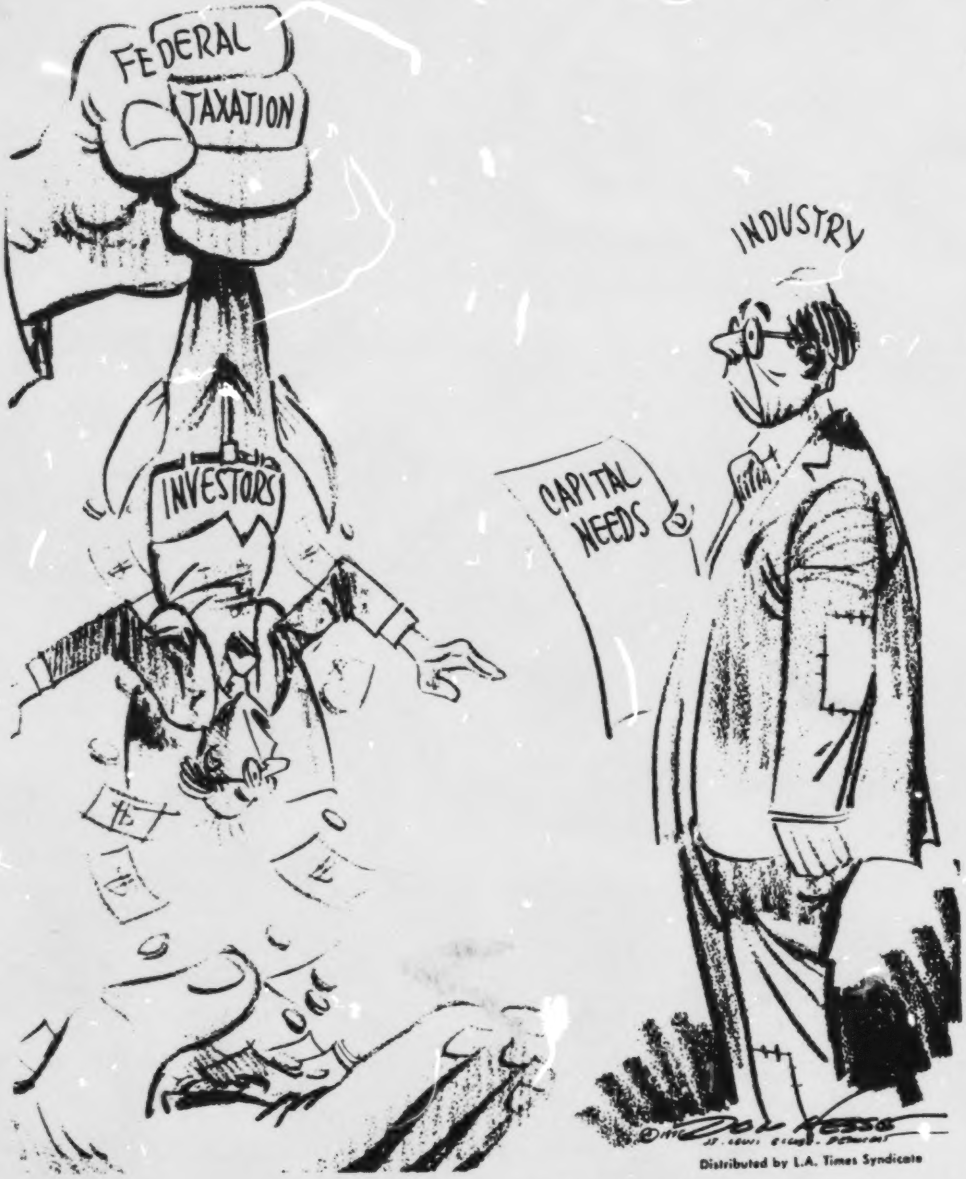
Symbolism: What does the pot represent?
Who does the hand in the pot represent?
Who is the small figure?

Interpretation: Is the artist for or against the federal government borrowing most of the money supply?

What happens to private industry if it cannot borrow enough money?

Using the circular flow diagram show what would happen if industry cannot borrow money to replace worn out equipment.

'SORRY MY FRIEND, I'VE GOT THE SAME PROBLEM'


FEDERAL TAXATION
INVESTORS
CAPITAL NEEDS
INDUSTRY
DON HESSE
ST. LOUIS GLOBE-DEMOCRAT

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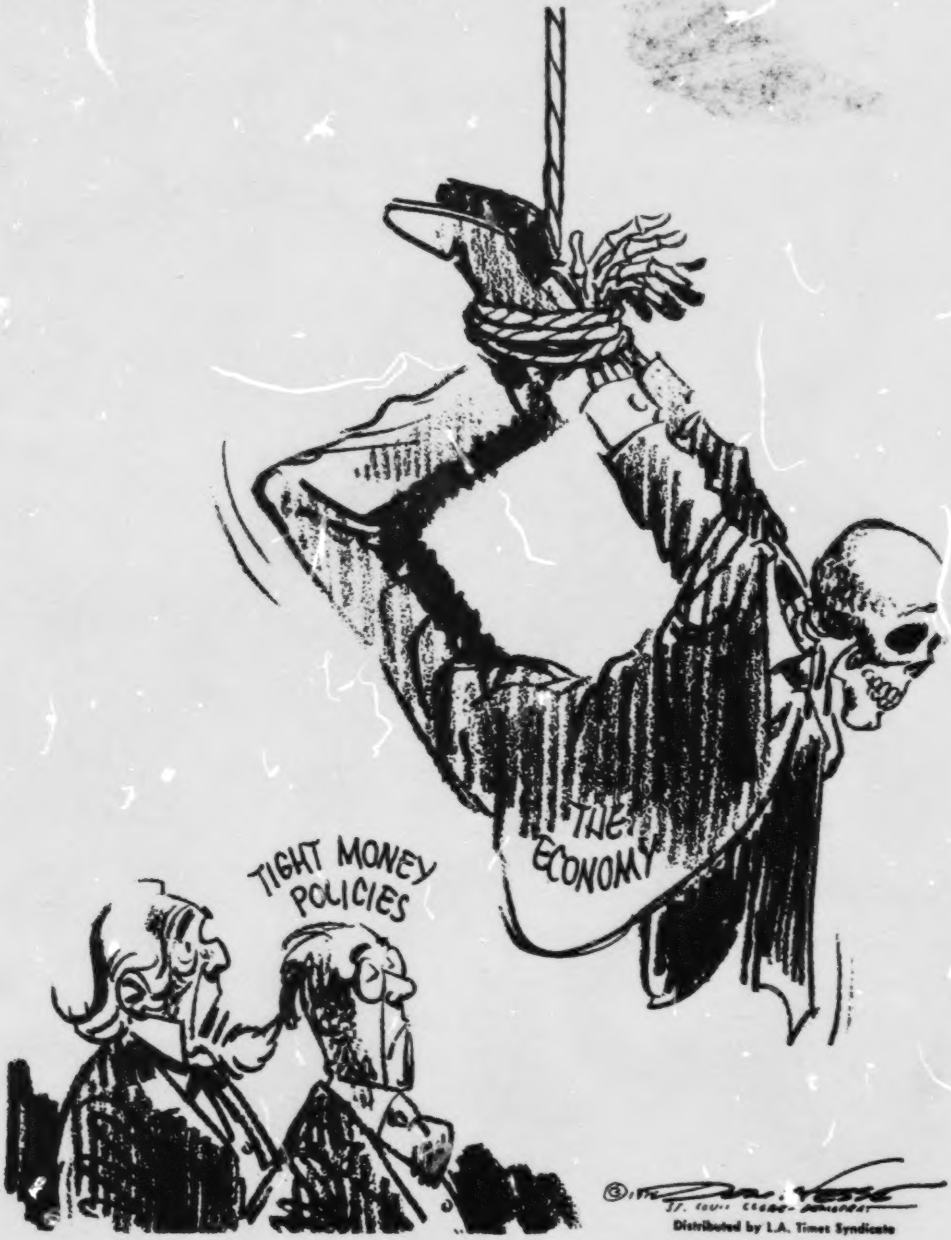
Symbolism: Who does the man on the right represent in the cartoon?
Who does the man that is upside down represent?
What does the other hand—the one holding the man—represent?
What does capital mean?

Interpretation: Why does industry need capital?
What happens if industry does not accumulate capital?
What is the investor's problem?
Using the circular flow diagram, show why federal taxation can slow down industrial development.

'THINK YOU MIGHT HAVE LEFT HIM THERE TOO LONG?'



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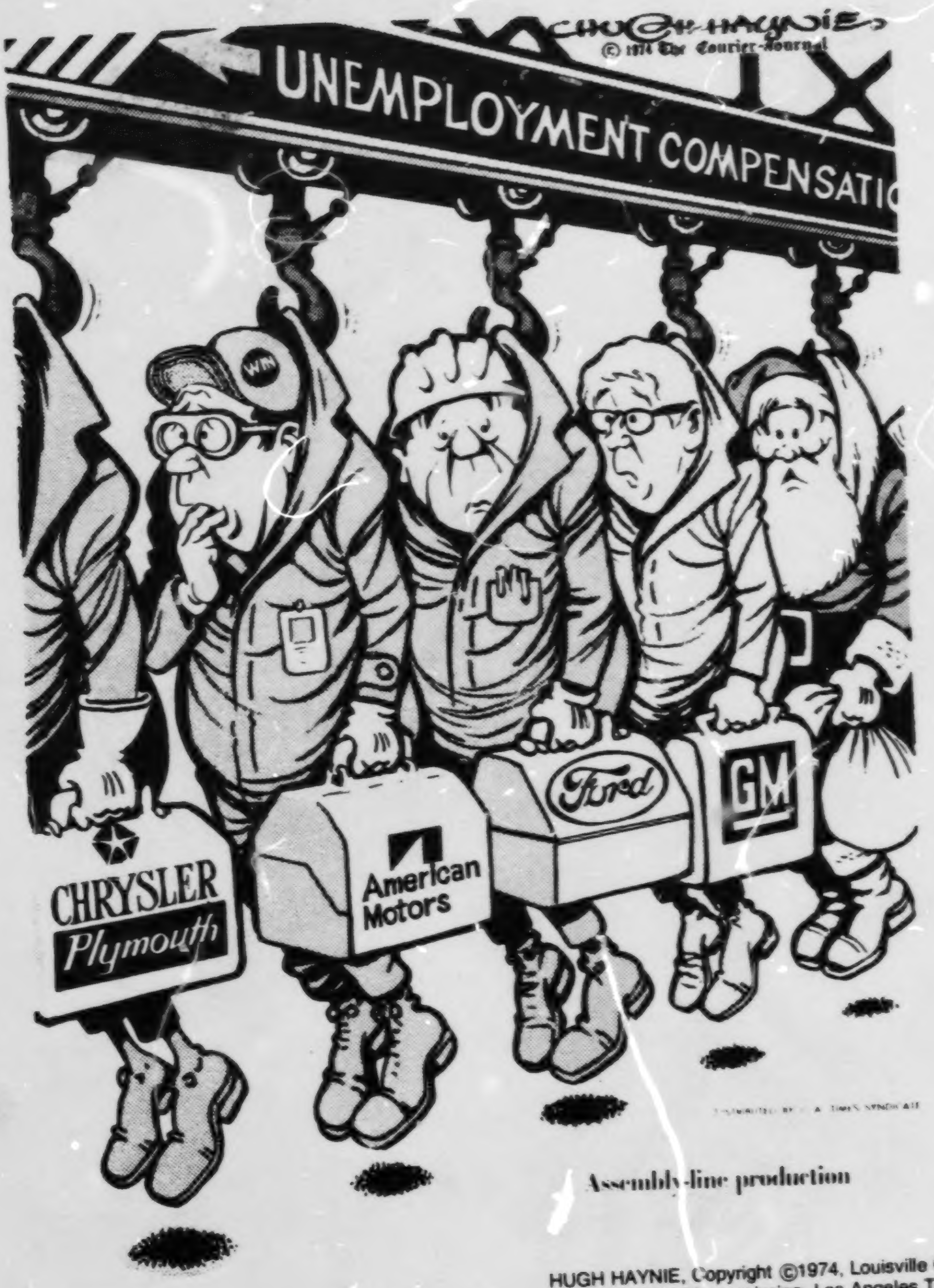
Symbolism: Who is the figure at the extreme left?
What does the man in the middle represent?
What does the skeleton represent?

Interpretation: Is the artist for or against tight money policies?
Using the circular flow diagram explain what could happen in the economy if the money supply were too small or restricted.


HUGH HAYNIE
© 1974 The Courier-Journal
UNEMPLOYMENT COMPENSATIO
WIN
CHRYSLER
Plymouth
American Motors
Ford
GM
DISTRIBUTED BY L.A. TIMES SYNDICATE

Assembly-line production

HUGH HAYNIE, Copyright ©1974, Louisville Courier-Journal.
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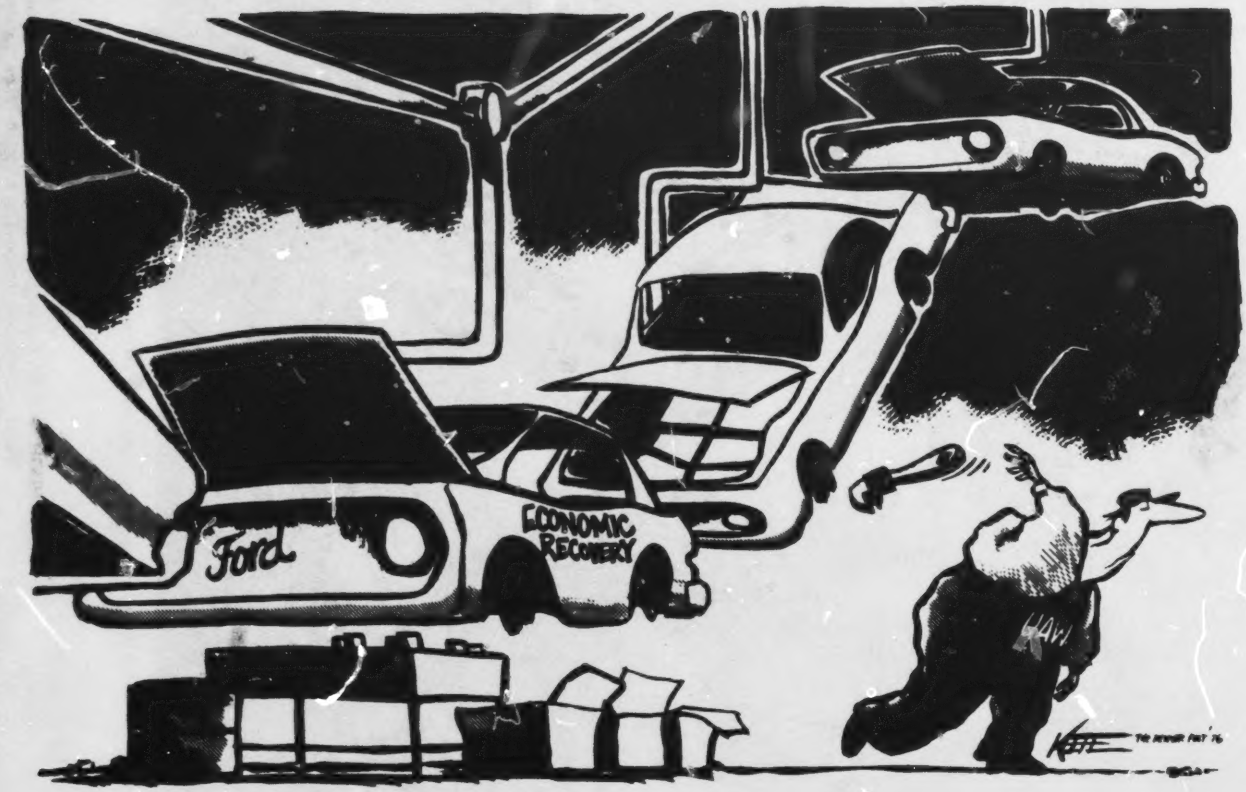
Symbolism: What do the four figures with lunch boxes represent?
What does the beam they are hanging from represent?
Who is the last figure in the picture?

Interpretation: If the workers from the automobile companies are out of work, what will Christmas be like for their families?

Using the circular flow diagram explain what happens in the market economy when workers are laid off.


Ford
ECONOMIC RECOVERY
UAW
KEEFE The Denver Post '76

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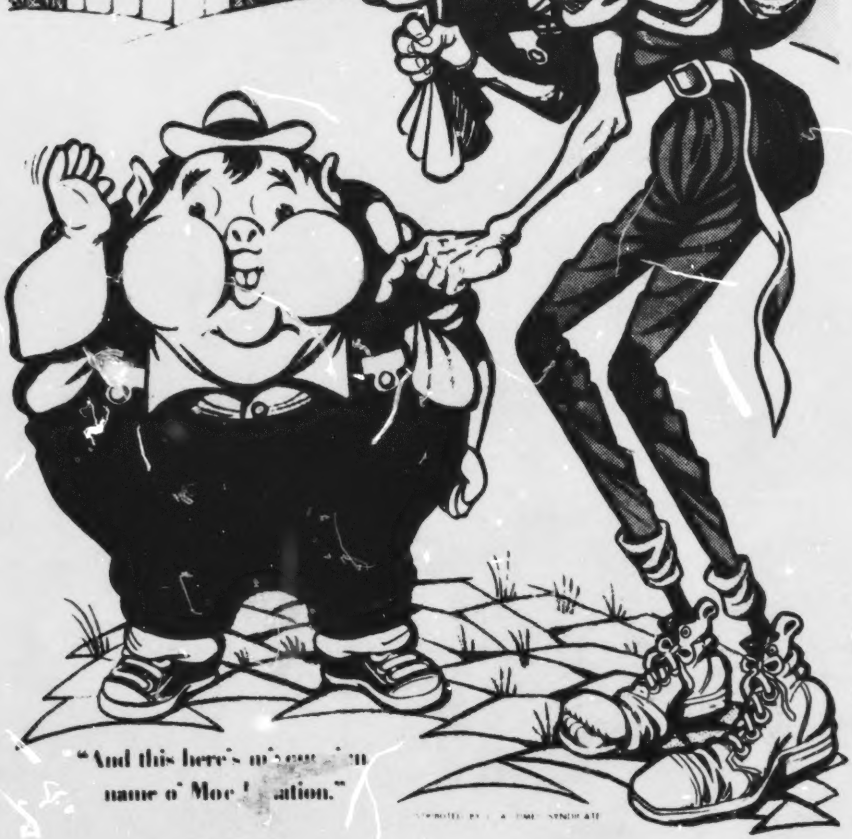
Symbolism: What do the half-completed cars represent in the cartoon? Who is the man that is throwing his wrench over his shoulder?
What is the UAW?

Interpretation: What might have happened that caused the cartoonist to draw this cartoon?
What happens to the wages of workers when workers go on strike? Using the circular flow diagram explain what happens in the economy during a strike.



CHUGH HAYNIE
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CROP FAILURES
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"And this here's mi cousin,
name o' Moe Inflation."

HUGH HAYNIE, Copyright ©1974, Louisville Courier-Journal.
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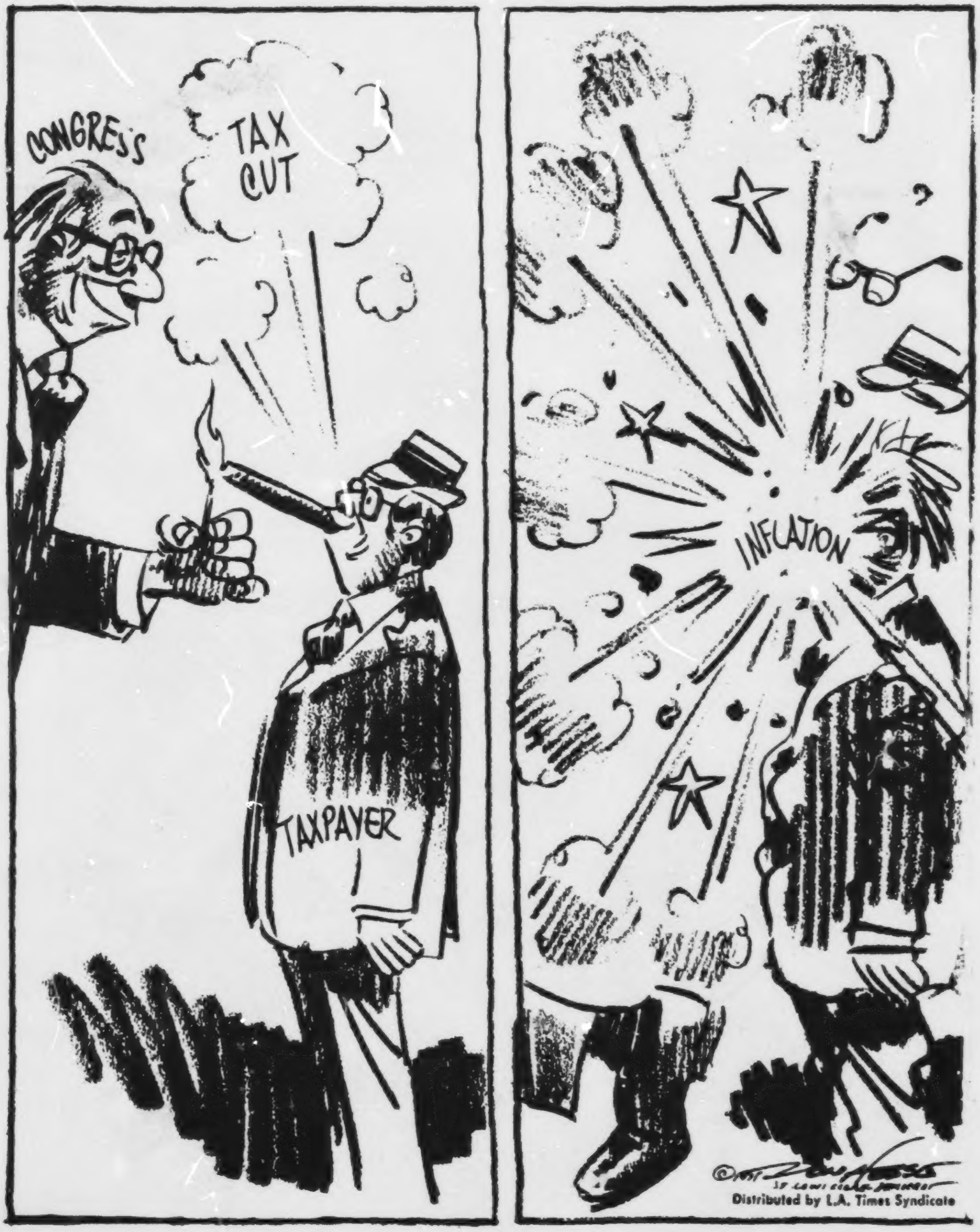
Symbolism: What is the building in the background?
Who is the tall figure at the right?
What does the small fat figure represent?

103

Interpretation: If there is a crop failure, what happens to the price of that crop to the consumer?


CONGRESS
TAX CUT
TAXPAYER
INFLATION
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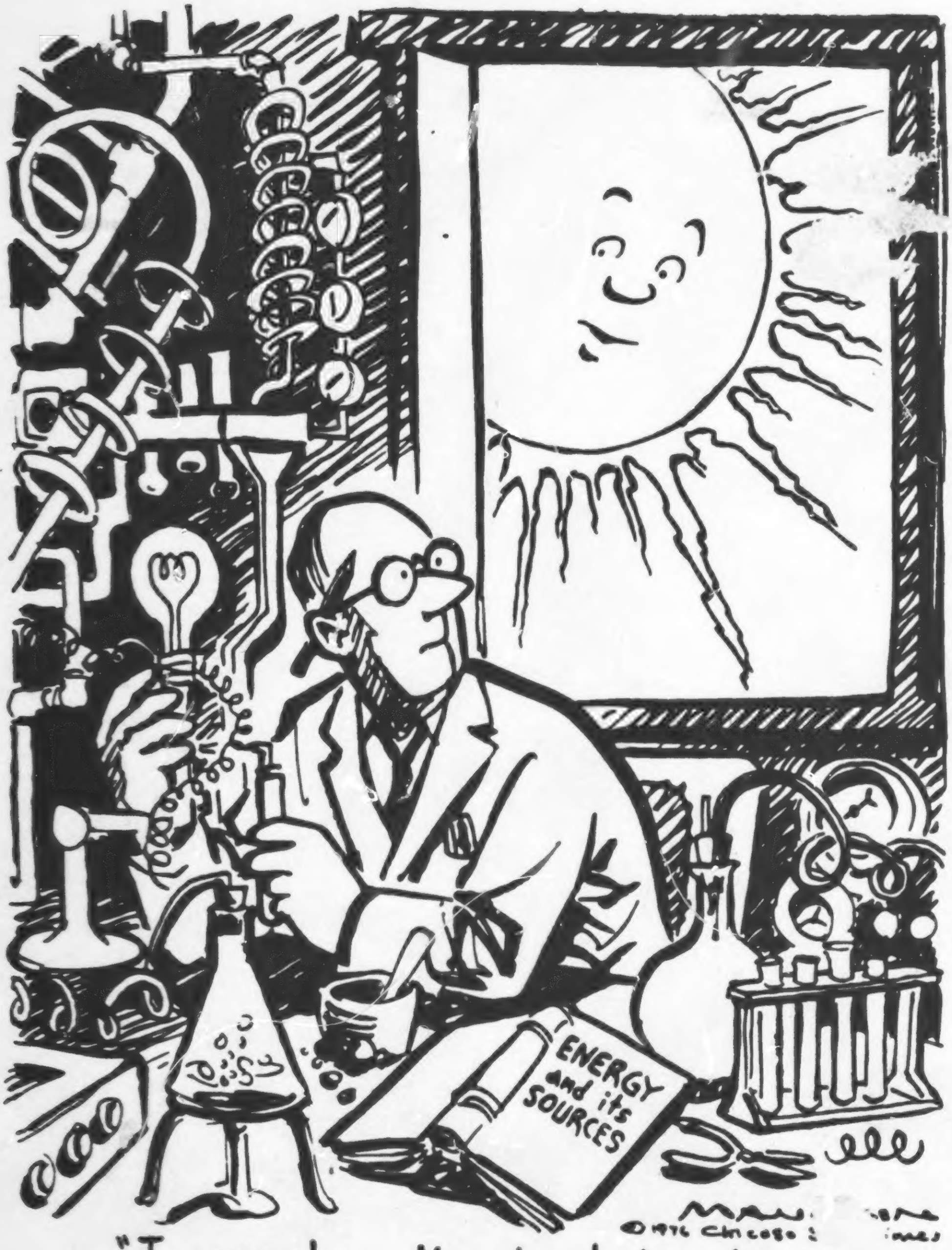
Symbolism: What is congress giving to the taxpayer?

Interpretation: Describe in a short paragraph what happened because of the tax cut according to this artist.

Using the circular flow diagram show how a tax cut could cause inflation.



"Try me, doc—I'm already turned on."

Copyright ©1976 Chicago Sun-Times.
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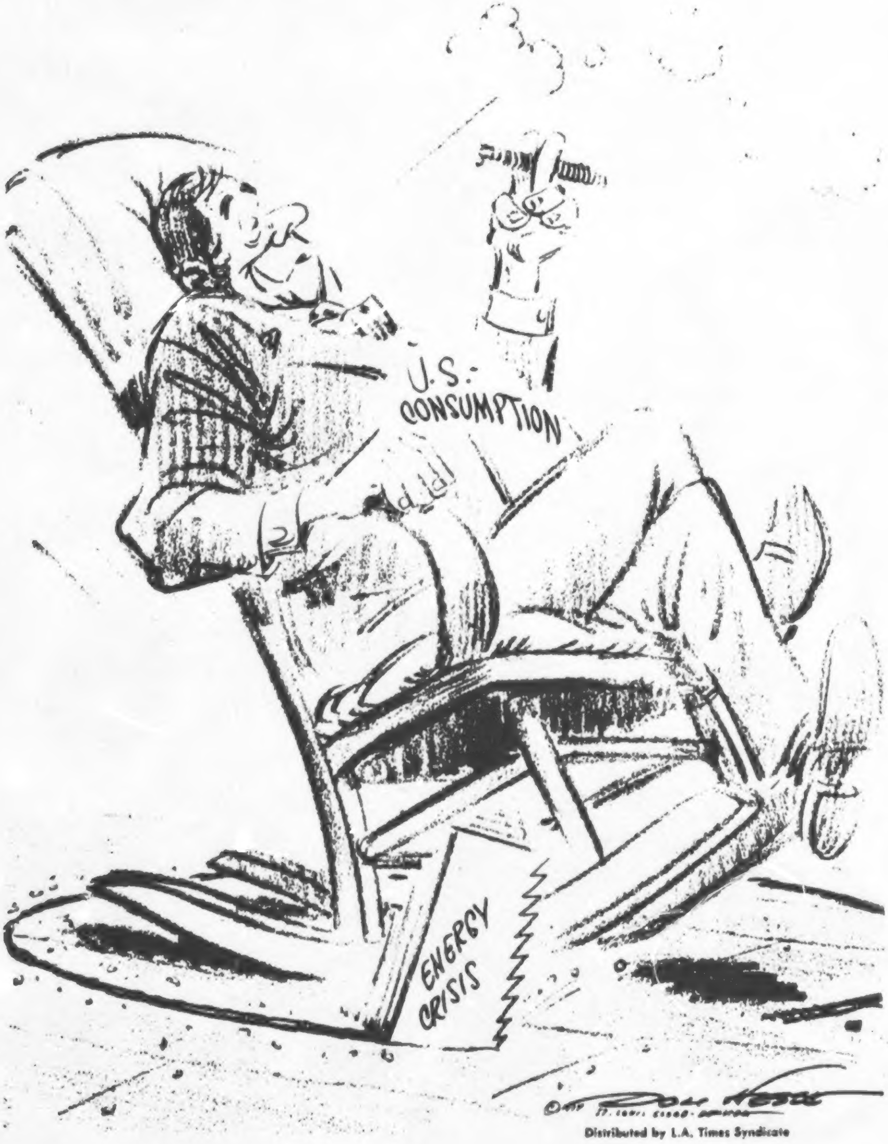
Symbolism: Who is the man in the picture?
What does the face in the window represent?

Interpretation: What is the man in the picture trying to do?
What is the artist trying to say in the cartoon?
Which energy sources are becoming scarce in the world?


U.S. CONSUMPTION
ENERGY CRISIS
Don Hesse
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Symbolism: What does the word consumption mean?
Who does the man represent in the cartoon?
What does the saw represent?

Interpretation: What will happen in the picture if the saw continues to cut its circle?
What will happen in the United States if we continue to use energy too fast?

IV. Evaluation

At the beginning of the unit the students could be given the Survey Regarding Political Cartoons. This measures on a 1-5 continuum the frequency with which students look at the political cartoons, and also how well they are able to interpret the cartoons they do see. This can also be given after the unit or at some future date to measure attitude change towards cartoons, and ability to interpret the cartoons after instruction.

The list of cartoon symbols could be given as a pretest and posttest, measuring the ability to memorize essential data for interpretation. Several cartoons could be given to students both before and after to measure the increase in ability to interpret what the artist is attempting to convey. Some cartoons in this part of the exam could be those studied in class while others could be new to the student. Students are usually fascinated by how much better they are able to perform after instruction.

SURVEY REGARDING POLITICAL CARTOONS

Below are two surveys about political cartoons. Please mark an X in the blank beside the number that most closely fits your feeling or your situation. The first question concerns the frequency with which you look at the political cartoons.

____ 1. I never look at the cartoons on the editorial page.
____ 2. I very seldom look at the cartoons on the editorial page.
____ 3. I sometimes look at the cartoons on the editorial page.
____ 4. I frequently look at the cartoons on the editorial page.
____ 5. I always look at the cartoons on the editorial page.
____ 6. I never read the paper at all.

This question concerns the degree of understanding that you have of political cartoons that you see. Mark an X in the blank that most closely fits how you understand the political cartoons on the editorial page of the newspaper.

____ 1. I do not understand any of the cartoons on the editorial page.
____ 2. I understand a few of the cartoons I see on the editorial page.
____ 3. I understand some of the cartoons I see on the editorial page.
____ 4. I understand most of the cartoons I see on the editorial page.
____ 5. I understand all the cartoons I see on the editorial page.

SUPPLY AND DEMAND

Some Principles of Supply and Demand

1. People will generally buy more at a lower price than at a higher price.
2. Producers generally offer more at a higher price than at a lower price.
3. When demand for a product increases, the price generally goes up.
4. When the demand for a product decreases, the price generally goes down.
5. If the supply of a product increased, the price of that product would generally decrease.
6. If the supply decreases, the price will generally increase.

As the political cartoons are shown to you or the newspaper articles are read to you, write down the principle of supply and demand that seems to apply.

1. ____________________
2. ____________________
3. ____________________
4. ____________________
5. ____________________
6. ____________________
7. ____________________
8. ____________________
9. ____________________
10. ____________________

Building a Town in the Days of the Gold Rush: An Economic Simulation Activity

I. Description of Concepts and Rationale

This study of economics is designed to correlate with the fifth-grade social studies unit, "The Western Expansion of the United States," and to provide knowledge of several economic concepts, each of which is described and justified in the section in which it is introduced. Those economic concepts that the students experience in this simulation activity include scarcity, resource ownership, opportunity cost, supply, demand, and money. It should be noted that within or following the specified culminating activity for each section, the teacher should: (1) review the major economic concept(s) being studied, (2) help students to verbalize the relationship between problems encountered and solutions attempted in their simulated activities, and (3) draw generalizations relevant to the real world.

The class, calling themselves the Springer Party, begins its imaginary journey at Independence, Missouri, in April of 1849. They cross the country in covered wagons via the Oregon Trail and take the southern branch that leads to California. (See page 108 for adaptation suggestions.) Each member of the party keeps a diary of the journey which includes information covering his/her experiences and the geography of the land through which the party travels. Upon reaching their destination, a large meadow on the banks of the American River some forty miles northeast of Sacramento, they set about the task of starting a town. Economic problems are encountered as they establish their own town during the "Gold Rush Days" of 1849-1851.

Two hypothetical economic problems are posed for each of the six basic economic concepts listed on the following pages. It should be noted that other problems could be posed and studied using these problems as examples.

In their study and resolution of the economic problems, the students are limited to use the knowledge available during the historic period of the problem. Their speculation into the future in search of solutions should not exceed a 50-year period from the date of the problem.

II. Objectives

1. Students will be able to explain that the phenomenon of scarcity—limited resources vs. unlimited wants—leads to an economic system. (scarcity, economic systems)
2. Students will be able to explain how goods and services are obtained through a system of economic exchange. (property, market system)
3. Students will be able to explain how the ability to produce may be limited by the amount of available capital, natural resources that are available, and the availability of labor and individuals with management ability. (factors of production)
4. Students will be able to explain what is meant when economists say that the real cost of goods and services produced and consumed is the value of things foregone. (opportunity cost)
5. Students will be able to explain the various reasons retail stores stock their shelves with specified goods. (demand)
6. Students will be able to give specific reasons for the importance of the conservation of natural resources. (scarcity)
7. Students will be able to explain how the discovery of new resources or the invention of new productions can lead to change. (supply)
8. Students will be able to explain why population growth or decline, and changes in types of people, can bring changes to the town which might be both beneficial and harmful. (externalities)
9. Students will be able to explain the importance of banks and other lending institutions to the economic activities of a community. (money and banking)

III. Directions and Instructional Sequence

Room Arrangement and Materials

See the background information and discussion questions relevant to each of the six sections (pages 105-108) and the list of films (page 108) subdivided according to the section each best enhances.

No specific room arrangement is required for any activity within the six parts of the unit. However, throughout this unit small-group discussion, small-group and individual research, and Town Meetings (whole-class discussion groups) are heavily relied on. The unit would be most successful if furniture within the classroom were movable, even if this had to be prearranged with the custodial staff at each instance a move was necessary. Should several rooms or a large room with movable dividers be available, so much the better for small-group activities. A room equipped with tables and chairs is preferable to one with one-piece desks in that the Town Meetings are ideally held in a circular arrangement in which every participant can see the other participants. For the culminating activity in Part II, a corner of the room with empty tables and shelves would be ideal if it could remain undisturbed for several days. However, the lack of any or all of the ideal circumstances will not seriously impair the satisfactory completion of the unit.

Because the unit is highly dependent on research by individuals and small groups, and because the decisions and solutions reached within each section of the simulation are highly dependent on the quality and quantity of information available, access to reference materials is a must. Maps of the route of the settlers' initial journey and the immediate site of the settlement are quite important. You may have to invent your own map of the immediate area of the settlement when none is available. Should you be able to obtain a facsimile map of the immediate and general areas as they appeared during the approximate time period being studied, so much the better. Any other types of maps available will also be useful—topographical maps, maps indicating (current) agricultural and industrial areas, etc. Students should have the maximum access possible to reference materials other than their normal textbooks. These materials should include information as to the geography of their settlement area, information as to the climate and natural resources of the area, general information on basic agricultural concerns such as timetables for planting and harvest, problems prevalent in single-family agricultural pursuits, etc. They should also have access to information on the development of business in this country, including the history of the general store and its importance. Dictionaries and encyclopedias will prove invaluable, as will general introductory material on economics and business (even if the only text materials available are for the high school level, include them). Graphs, pictures and legends, and glossaries are still potential sources of information (it is possible that the class's better readers will tackle parts of even an advanced text). Information on ranching, mining (in the time period being studied), ghost towns, even on important inventions of the 19th and 20th centuries, can help children to put the less technologically developed past into perspective.

Any specific materials on banking or loans will be invaluable in Part V, and any specific materials on the development of, and current-versus-past, tax structures will aid greatly. It is strongly suggested that a simplified procedure for access to the school (and perhaps a nearby public) library be developed, so that small groups of students could research at their own paces; however, in some schools this would be virtually impossible. The next best solution is to have some time every day or every few days when the entire class visits the school library for a long enough time to return materials already perused and to check out new sources.

Even if you should have ample chalkboard space or bulletin board space which can be reserved for the many on-going lists the children will be making, you might consider the practicality of using butcher paper in long rolls. It is inexpensive, can be stored out of the way when social studies is over for the day, and can be kept for posterity if you wish. In any case, the rolls can be kept with relative ease and used at the culmination of the unit as review tools for the concepts and generalizations learned.

Children will possibly be using more penmanship or scratch paper than usual to keep track of their research. Records of group decisions can be kept by "secretaries" on penmanship paper, or, should the group findings lend themselves to listing, they can be kept on the aforementioned butcher paper.

Other than these general materials requirements, specific materials are necessary and must be prepared for Activity 2 under Part V. This activity requires that a container be prepared with random answers to four questions with at least five alternative answers being provided for each of the four questions. Also, for the culminating activity for Part II, children should have access to art materials from which to create goods for the mock store. At a minimum, they should have old magazines from which to cut pictures, and paper and crayons with which to draw their own. Should you have storage space, you might encourage students to bring empty (cleaned) food containers from home.

Sequence of Activities and Procedures

There are six different parts of this unit which should be done sequentially. Each of the six will follow in order with directions for: (a) motivation and information, (b) specific ordered activities for that section, and (c) culminating activity for each section. Before leaving each section of the unit, it is important to utilize informal discussion to ascertain that the students have drawn and are correctly applying the economic concepts and generalizations for that section. See the "Background Information" (pages 105-108) for some suggested discussion questions.

PART I. ECONOMIC CONCEPT: SCARCITY AND RESOURCE OWNERSHIP

Each society develops an economic system to deal with the problem of how to allocate limited resources among alternative uses. Economic systems differ among different countries and at different times in history.

Motivational and Informational. Review with the students the "trip" they have just taken and discuss with them the most urgent problems facing them if they are to establish their town on the American River. (At this point, the assumption is made that each family has at least a temporary dwelling and enough food to last until crops are in and harvested.) Suggest that they have two basic and immediate problems.

Present the problems:

Problem 1. What should we produce to keep our town going?

Problem 2. What resources are required to produce the goods and services?

(For further suggestions for discussion before activities, see the "Background Information," and "Questions" for Part I.)

Activities. Have students list the goods and services to be produced in order for a town to keep going. Have students break into groups to do research on the geography of their valley. Pool their findings on the natural resources of the area.

Appoint committees to make suggestions for solving the following:

a. What jobs will be necessary to produce the things we want in our town?
b. How should we decide who gets which job?
c. How much capital do we have as a group and as individuals?
d. Should we open a branch bank of the Bank of Sacramento, or should we start our own bank, coin our own money, and handle our economic problems among ourselves only?
e. If we set up our own currency system, what will we use as a medium of exchange for goods we may want to purchase from other towns?
f. How do we determine who should manage and who should supply labor?

g. What constitutes good management?
h. How do we determine how much various jobs are worth?

Students should then come back as a total class and report on their research findings. Based on these findings, they should decide: who should produce what; who should be given what land; which individuals should own and operate the bank, store and church; and who should make and administer laws. Decisions should also be made as to what kind of a bank and money system will be used and whether capital for setting up producers and providers of services should be borrowed by individuals or by the community as a whole. Finally, students should decide on the basic form of government they want, if any, and who should administer that government.

Culminating Activity. The leader of the community calls a Town Meeting to discuss an emergency situation. In the spring, the farmers had planted enough in quantity and variety of crops both to provide the community with necessary food and to allow for a surplus to be sold outside the community. However, unexpected rains and floods have destroyed many of the crops. The farmers were heavily in debt and are faced with financial ruin. The community is faced with the grave problem of a lack of sufficient food for the coming year. What should be done? (Let the children make their own decisions.)

PART II. ECONOMIC CONCEPT: OPPORTUNITY COST

In our system, consumer demand in the market is the main force that allocates the productive resources among competing wants. When resources are used to satisfy one want, they cannot be used for something else. Thus, the real cost of the goods and services produced is the value of the things that are foregone.

Motivational and Informational. Through films, research and discussion, make sure the children understand the various kinds of western communities and the varying types of economic structures that resulted.

Also, have children research the part of the Country Store in communities of that period and area. Discuss how the type of town helped to determine the stock carried by those stores.

Present the problems:

Problem. 1. What economic alternatives are available to us in our town with our limited resources?

Problem 2. What types of goods should our general store owner put on his shelves?

(For further suggestions for discussion before activities, see the "Background Information," and "Questions" for Part II.)

Activities

1. Define the following terms: consumer, wants, alternatives, limited resources.
2. Have students offer suggestions about the different types of towns we might want (i.e., ranching town, farming town, ranching and farming town combination, gold-mining town, etc.)
3. Break up into groups to discuss how our resources could be "best" (most efficiently) used in each type of town. List these results.
4. Discuss committee results with total class.
5. Divide the class into groups according to the type of town they think they would like to have lived in. Have them decide what products would have to be carried on the shelves of their store.
6. Groups report their findings to the total class. A discussion should then be held to see how the various groups' lists of supplies are alike, how they are different, and, in each case, why the similarity or difference.

Culminating Activity. Have students set up a mock country store, stocking the shelves with those supplies that meet the demands of a ranch-farm community. Choose students to be store owners and clerks, and others to be regular store customers who are to come to the store to buy their regular weekly supplies. Ask them to role-play the parts of these buyers and sellers.

Meantime, give secret instructions to other students as follows: "You are miners on your way to the hills to try to find gold. The nearest mining town has run out of many supplies and is charging exceedingly high prices for those they have left. You want food, shovels, picks, and staple foods. Go into this store and do whatever you can (including offering higher prices and threatening) to get the supplies you will want for a period of several months."

PART III. ECONOMIC CONCEPT: RESOURCE BASE

The productive resources a country possesses affect the amount and kind of goods and services that are produced. The quality and quantity of the productive resources change due to discovery, population growth, education, technological progress, and capital formation.

Motivational and Informational. Have the children review what natural and human resources were available to settlers in the area of their simulated community.

Present the problems:

Problem 1. How will the amounts and kinds of our natural resources affect the growth and production of our town?

Problem 2. How will the amounts and kinds of human resources affect our town? (Further suggestions for discussions either before or after the activities can be found in the "Background Information," and "Questions" for Part III.)

Activities

1. Define the following terms: externalities, conservation, nonrenewable, quantity of resources, quality of resources, technological progress.
2. Have each child list the ways in which s(he) uses the natural resources of the area in his or her own job and home. Pool the ideas in a class discussion.
3. Discuss which of our resources are nonrenewable and perhaps should be conserved.
4. Break into groups to write a brief paper expressing group decisions on ways in which we might conserve our nonrenewable natural resources.
5. Divide the class into two groups to plan and produce two separate newspapers. Paper 1 assumes that there is a population boom in the town. Paper 2 assumes there is a dangerous decline in population. Suggested headlines might be:

Paper 1

- New Resident to Open Luxury Hotel
- One-Room School to Add Two More Classrooms
- Building Boom Brings More Jobs
- Sheriff Complains of Workload—Asks to Hire More Deputies
- Famous Singer Jenny Lind to Perform Here
- City Fathers Ponder Slum Problem
- Fighting Erupts Between Whites and Chinese
- Famous Writer Settles Here
- Socialite to Entertain U.S. Senator
- New Fishing Resort Opens
- Number of New Businesses Soars

Paper 2

- Hotel Closes
- Last Big Mine Shuts Down
- Unemployment at Record High
- Owner of General Store Threatens to Close
- City Fathers Plan Campaign to Encourage New Settlers
- Crop Failures Threaten Food Shortage
- Bank Fails!
- Property Values at All-Time Low
- Philosopher Enjoys Peace of Sparse Population

When the news stories have been written, have the groups exchange stories and act as citizens reading their town newspapers. In a role-playing situation students can act as various townspeople (school children, parents, property owners, farmers, business owners, etc.) to discuss the effects externalities may have on them and their families.

Culminating Activity. Have each child pretend he or she has just inherited an old ghost town which has been deserted since 1851. It is in the general area of the class's simulated community. Ask each child to write a story telling what (s)he would do with the property and how (s)he would go about it.

PART IV. ECONOMIC CONCEPT: TECHNOLOGICAL PROGRESS AND SUPPLY

Technological progress refers to the application of men's ideas, knowledge or inventions to economic activities. It may be in the form of discoveries of new supplies or uses of natural resources, new machines, materials or production methods, or the invention or improvement of consumer goods and services. Technological progress has contributed to the economic growth of our country by increasing the productivity of labor. It also has a profound effect on the ways in which people work, the amount of income they earn, their level of living, and their way of living.

Motivational and Informational. Children should view films, do research, and have discussions to determine how methods and organizations changed gold-mining in California. They should also research rice-growing in the Sacramento Valley to see what changes there have been in the growing, harvesting, and preparation for sale of that product.

Present the problems:

Problem 1. Should our gold-miners band together and form a company or remain in business for themselves?

Problem 2. What results might follow if more efficient methods of rice production are found?

(Refer to the "Background Information" and "Questions" dealing with these problems.)

Activities

A. 1. Define these terms: productivity, efficiency, unemployment, leisure time, independent workers.

2. Discuss: Who is to decide if a company is to be formed?

3. Have some students represent the miners who wish to remain independent. Have another group form a mining company. Have each group compile information on the benefits and disadvantages of each method of producing gold. Compare the results, being sure to note the amount of income earned by each person under the two different systems.

B. 1. Define these terms: increased income, profit, overproduction, skills, open market.

2. Have students think of new methods that might do one of the following things: increase productivity per acre, irrigate more land for rice-growing, increase our growing season to two crops per year, improve the quality of our rice.

Have a class discussion to decide on the value of suggested methods and what might be expected to occur if one method were adopted.

Culminating Activity. Ask children to "invent" a machine which could do some of the work of a farmer or miner. They may either draw pictures of their inventions or write descriptions of them. These should be shared with the class along with an explanation of how this machine would affect the supply of goods and services involved.

PART V. ECONOMIC CONCEPT: INSTITUTIONS, MONEY AND BANKING

An economic system develops economic institutions to carry on the every-day economic activities of the community. We have such institutions as the use of money and credit, banks, business organizations, labor organizations, and collective bargaining.

Motivational and Informational. This part of the project deals primarily with the use of credit in our economy. Most children of intermediate grades are well aware of the fact that their parents buy products on time and use charge accounts. They may, however, be inclined to view institutions which extend credit as "bad guys" who make life difficult for those who owe money.

In this particular study, it might be best to pose the problems and go into the activities without further study. For discussions which might become desirable during or after the activities, the teacher can refer to the "Information" and "Questions" for Part V.

Present the problems:

Problem 1. A few farmers living near the river lost their wheat crop when the river flooded their farms. These men want to buy goods at the general store using credit which usually consists of an I.O.U. or check. Should the store owner allow them to use credit in his store?

Problem 2. The owner of the local hotel is moving to another town and wishes to sell his hotel. He is asking $9,000 for the hotel and lot with the mineral and water rights to the property. He has received three offers to buy his property. How can the hotel owner decide which of the three people to sell to? (None of the three has the cash on hand.)

Activities

1. Define these terms: loans, I.O.U., credit, credit risk, over-extending credit, and debt.
2. Set up committees with members taking the roles of credit investigators employed by the store to investigate the economic backgrounds of five farmers who wish to purchase items from the store, using credit. Give each committee one of the following farmers to discuss and further investigate:
   a. Mrs. Taylor: Mrs. Taylor has never borrowed money from anyone and does not keep her money in the bank because she believes it is not safe in other people's hands.
   b. Mr. Salyer: Mr. Salyer has taken out loans from the bank before and has always paid the bank back on time.
   c. Mr. Johnson: Mr. Johnson has purchased items from the store on credit before but is not always prompt in paying his debts.
   d. Mr. Wilson: Mr. Wilson does a regular business with the store but has never used credit before.
   e. Miss Stanyon: Miss Stanyon usually maintains a steady balance in her checking account at the bank. This flood has, however, depleted her supply of cash since she had to withdraw nearly all her money to pay for repairs on her family farm.

   Using the above-given information as a beginning, have each group add to their knowledge of the farmers' economic standing by drawing information randomly from a container. (Factors to be recorded and placed in the container should include five separate answers to each question with some duplication of answers.)
   a. How much income does the farmer normally have annually?
   b. Does s(he) usually pay for items purchased with cash or credit?
   c. Does s(he) keep money in the bank? How much?
   d. Does s(he) usually pay debts on time?
3. With the economic background of the farmers established, have the "credit investigators" answer the following questions stating their rationale regarding each of the farmers:
   a. How much credit should be allowed from the store? Why this amount?
   b. Will the bank loan any money?
   c. How soon does the farmer think s(he) will be able to pay the store-keeper for items purchased on credit?
   d. What form or forms of credit did this farmer want to use?
4. Have the various committees list the answers to the questions above on large charts. Use the answers to determine as a group which of the farmers is most deserving of credit approval.
5. Define these terms: credit rating, long-term loan, purchasing power, mineral rights, and water rights.
6. Discuss the structure and functions of a bank with the class.
7. Have students list the following information concerning each prospective buyer on charts:
   a. Prospective Buyer A: He is a wealthy land-owner in our town. His personal savings and checking accounts amount to $7,000. With the aid of a bank loan, he purchased two vacant lots next to the hotel this past year. He plans to buy the hotel and use the two lots to make additions to the present hotel structure. Buyer A plans to pay 20 percent in cash from his savings. The remainder of the purchase price he plans to borrow from the bank on a long-term loan.
   b. Prospective Buyer B: Buyer B has just moved into our town and has bought the Old Collins Place on the east end of town. He paid the total price of the house ($1,500) in cash. He has transferred his money from his previous bank in Sacramento to our bank. His personal accounts in the bank total $5,000. He has offered to pay 50 percent of the total price of the hotel in cash and take out a bank loan for $6,000 to make up the balance and leave some extra money for improvements to the existing hotel.
   c. Prospective Buyer C: Buyer C has lived in our town since it started. He owns a 75-acre farm bordering the river. He makes a steady annual income and has managed to save enough to pay 90 percent of the price of the hotel in cash. He does not keep his money in the bank and does not believe in taking out loans. He has promised, however, to pay the remaining 10 per cent of the total price from his monthly earnings at the rate of $50 a month. He wants to retire from farming, sell his farm, and move into town to live in and manage the hotel.
8. Have one group serve as bankers and figure (a) interest each buyer would have to pay, and (b) the total amount to be paid back to the bank.
9. From the accumulated information, have a class discussion in which the following questions are answered to determine to whom the hotel should be sold:
   a. What information is lacking concerning the economic status of each prospective buyer? (Fill this in on the charts.)
   b. Which buyer presents the best credit risk and why?

Culminating Activity. An effective culminating activity is a class discussion which would enable the students to apply these learnings to new situations. An ideal lead-off for such a discussion would be a guest speaker from a local bank, savings and loan, or credit bureau. Such a speaker can provide information on the granting of credit in the modern world, and may present hypothetical cases as a basis for an analytical discussion.

PART VI. ECONOMIC CONCEPT: THE MARKET SYSTEM AND GOVERNMENT INTERVENTION

Although our private enterprise system is based on decentralized decision-making, the government's economic role has increased as our economy has become more complex.

Motivational and Informational. Before going into the "activities" section of this part of the project it is necessary that the children learn through films, research and discussion that certain services and goods are provided by government.

By the same means, they should be informed of the rationale for taxation and those items a government may decide to tax.

With this background, the following problems may be suggested:

Problem 1. The mayor and Town Council have reached a decision concerning the overcrowding in our town's elementary school: because of the recent population boom the two-room schoolhouse is no longer adequate. They concluded that an additional two rooms are desirable and another teacher should be hired. The question being debated is, should the citizens pay taxes to raise these funds?

Problem 2. We are increasing our trade with other towns and cities in our state. We could increase trade further still if we had better roads connecting our town with other communities. The newly organized state government has offered to help us to build more and better roads, but this means we will now have to pay taxes to the state. Should we pay state taxes?

Activities

1. Define these terms: government regulation, taxes, income tax, property tax, sales tax, business tax, cost of living, and assessed valuation.
2. Have students divide into two groups. One group will debate in favor of taxes and one against taxes. Some key questions to be answered during the course of the debate are as follows:
    a. What alternative means do we have for meeting the cost of the additional rooms and teacher?
    b. If our town's population continues to expand, what new problems might arise for our educational system?
    c. Of the alternative types of taxes (income, property, sales or business), which one or ones might be best suited to meet our needs? What does each type of tax entail?
    d. Should our local town government have the right to tax the citizens? Why or why not?
3. Have students work in groups to list all the advantages that better roads might have for our town.
4. Discuss, as a class, how much we should have to pay to the state for their services in helping to build the roads.
5. Have students suggest alternative ways in which the money to build new and better roads could be raised.
6. In their groups have students answer the following questions to be discussed or debated at a later date:
    a. What form(s) should state taxes take (income, sales, etc.), and why?
    b. Should these taxes remain "fixed," or should they increase and/or decrease as services are rendered by the state?
    c. Who should decide what a "fair" tax is, and why?

Culminating Activity. Call a Town Meeting to discuss the proposed raising of property taxes to build an opera house for our community. For purposes of this simulation, various students should assume different roles as:

1. Contractor and his/her associates who will build the structure.
2. Socialites to whom an opera house would mean social prestige.
3. Music lovers.
4. Large landowners with little interest in "cultural" activities.
5. Individual who owns a restaurant next to the proposed site of the opera house.
6. Home-owners with limited incomes.
7. Individuals who oppose all property taxes.
8. Any others (as determined by the children).

Follow-up Activities

It has already been suggested that questions from the "Background" be utilized following each of the six parts of this unit, either during or after the culminating activity for each part, as an informal evaluation of the students' progress. As a follow-up activity for the entire unit, the teacher may wish to isolate questions representative of each part of the unit (perhaps those with which the class had the most difficulty during the unit itself), and present these once more in discussion as an informal evaluation tool for the unit as a whole.

IV. Evaluation

The following questions have been provided for a formal evaluation of the unit as a whole, and to measure the attainment of stated objectives.

1. People moved to the prairie one family at a time. Each family worked alone to grow its own food and to make its own clothes and other things it wanted. There was no town nearby, no stores, and no one got goods or services from other families. If someone had no chickens, he just never had eggs. Soon there were many families living in one area. They got together to talk about something strange that was happening. People were beginning to trade goods and services. Joe had given Pete a dozen eggs in exchange for fixing his roof, because Pete had no chickens! They wanted to discover why people would do such things. Which one of these things would you tell them?

a. People have economic systems because it gives them a chance to see each other more when they exchange goods and services. They only do that as a reason to meet and have fun.
× b. People have economic systems because resources are limited and wants are great. They give up something they have in order to get something they want. (Pete wanted eggs so he gave Joe his labor.)
c. What Pete and Joe did just happened for no reason. Joe gave Pete eggs because he is his friend, and Pete helped Joe fix the roof because he likes him. It has nothing to do with how people usually act.

2. In some economic systems, a planner decides what goods and services will be produced and who will get them. In some economic systems the consumers decide in the long run what will be produced. In some places goods and services produced are the same ones that have always been produced, because that's what people are used to. Why is it that every country or group of people must have an economic system to decide what will be produced and who will get what's produced? Is it:

a. Because people always want to make everything more complicated than it has to be.
× b. Because choices must be made as to how scarce resources will be used.

c. Because if no one told people to produce goods and services, nobody would do any work.

3. Mr. Taylor is a cattle rancher with a large herd of cows. His family can get beef from their cows but they have no vegetable garden to get other foods and no cotton or wool from which to make clothing. They want vegetables and cloth. They also want their children to go to school, but there is no teacher in the Taylor family to teach them. How can the Taylors use the cows they own to help them to get other things they want such as vegetables, cloth and education?

Criterion for correctness:

a. They can sell some of the cows to someone who wants cows and use the money to buy goods and services from people who own the goods and services they want. Or,

b. They can trade the cattle with the people who own the goods and services they want, provided those people want the cows in exchange. Otherwise they must go through a series of exchanges.

4. Since the Taylor family has many more cattle than they want to use themselves, they decide to take the cattle to Abilene where cattle buyers buy hundreds of cows every day. The Taylors will be happy to sell their cows to the cattle buyers because then the family can use the money to buy other things they want. Why would the cattle buyers in Abilene probably buy so many cattle each day?

a. The cattle buyers only eat beef and they are so hungry that they must buy hundreds of cows every day to get enough beef for themselves to eat.

b. The cattle buyers like animals very much and want to have lots of cows for pets.

× c. The cattle buyers take many cows from Abilene to places in the East where people don't raise their own cows but are willing to pay money to someone in exchange for beef. In this way the cattle buyers get money to buy the things they want.

5. Miss Adams is a teacher in a frontier one-room school. She works many hours every day to teach all the children in the town. She doesn't have the time to raise her own cows to get beef for herself to eat. At first, she thought that her students might pay for their schooling by bringing her beef, but none of her students lives on a cattle ranch. How do you think Miss Adams can get beef if she keeps on using her time to be a teacher at the school?

Criterion for correctness:

a. Individual students (or the town government through tax money) will pay for the use of her time in currency which she can then use to get goods and services from those who own the goods and services, or

b. (less preferable, half credit), she can trade the service she provides (her teaching) for the goods and services she wants. (She can be paid by individual students or the government in specified goods and services.)

6. Walter has decided to produce egg-carton caterpillars. He has taken a market survey to find out how many people will buy each week at certain prices. He has figured out how much each caterpillar will cost to produce. He has hired friends to help to paint and put the legs on the caterpillars. He arranged to do a certain amount of work for his mother in exchange for each egg carton she gives him. But Walter's "factory" can't keep up with the demand for caterpillars at current prices because he hasn't been getting enough egg cartons! What did Walter probably forget to think about when he decided how much to produce?

Criterion for correctness: He forgot that how much he could produce was limited by the number of egg cartons his mother was willing to supply.

7. George moved to Plainstown and got a great idea. He thought that people there would love to buy beautiful redwood boards to build the front parts of their houses. He asked around and found that people thought it was a great idea too (he conducted a market survey). He read up on how to have a lumber mill saw logs into boards. He read about how to grow redwood trees. Then he gave up his idea. When people asked why, he said, "Factors of production." What do you think he meant?

× a. He couldn't produce redwood boards for a profit because redwood trees wouldn't grow in Plainstown, and it cost lots of money to bring them from California or Oregon.

b. He was lazy and just wanted to use big words to confuse everyone so they wouldn't know it.

c. Someone had already thought of the same idea and had beaten him to building the lumber mill.

8. If a pioneer spends two hours tracking and hunting a deer, what is the real (economic) cost to him of the deer meat and hide he gets?

a. The real cost is that he may not kill the deer after spending such a long time tracking it.

× b. The real cost is the two hours of work in the cornfield that he gives up in order to hunt the deer.

c. The real cost is the 10¢ worth of gunpowder he will use.

9. Each person in Daniel Boone's family had to spend long hours doing the many chores for the family's survival in the wilderness. Every Monday Mrs. Boone spent all day from sunup to sundown (12 hours) boiling water and washing the family clothes. What was the real cost (opportunity cost) of cleaning the family clothes?

× a. The real cost was the 12 hours of canning fruits and vegetables she gave up to wash the clothes.

b. The real cost was the whole bar of soap she used to get the clothes clean.

c. The real cost was that the clothes would just get dirty again anyway.

10. The year is 1851. You are leaving your home in Missouri to travel with a wagon train to California. You are going to move there with your family. You have packed your wagon until it is almost full, but there is one space left. The space is big enough for either Grandma's rocking chair or a big sack of flour. What is the real (economic) cost to you of taking the flour?

a. The flour might get bugs in it and spoil.

× b. You would be giving up taking Grandma's chair with you.

c. Uncle John will be angry because he wanted to take the big chest of drawers and that is too big for the space the flour or rocking chair will fit in.

d. The other people on the wagon train will try to borrow flour from you when they run out of their own flour.

11. The General Store in the town of Miners Gulch stocks lots of picks and shovels. It also has many gold-mining pans on its shelves. But it doesn't have any seeds for growing wheat or corn. Why does the store owner probably have so much mining equipment on hand but not any corn or wheat seeds?

× a. Because the miners who shop there do not want to buy corn or wheat seeds at current prices. They want to spend their money on picks, shovels and gold-mining pans.
b. Because the store owner sneezes whenever he gets near corn or wheat seeds and he doesn't want to have them around his store.
c. Because when the store owner ordered his supplies he saw how pretty the gold-mining equipment looked and forgot to order the seeds.
d. Because even though the miners want to buy corn and wheat seeds, the store owner doesn't want to sell them. He thinks that the miners should spend all their time mining and not waste time growing corn and wheat.

12. There are two general stores in the town of Cattle Crossing, Johnson's Store and Little's Store. Both charge the same amount of money for the food items such as flour, sugar and bacon. Johnson's also stocks ropes, saddles, spurs and other things the ranchers want to buy, but Little's doesn't. Little's Store is about to go out of business because almost everyone shops at Johnson's Store. What is probably the economic reason people shop at Johnson's Store?

a. People like Johnson more than they like Little.
× b. Johnson has the cowboy equipment the ranchers want and are willing to pay for, as well as the food items they also want to buy.
c. Little's Store is in a smaller room than Johnson's Store.
d. Little doesn't like cowboys.

13. You are going to open a store in a small frontier town and are shopping for your supplies to sell in the store. There are mostly men in the town and there are not any little children there. You see some wonderful baby toys and have to decide whether to buy baby toys or men's pants to sell in your store. Will you buy:

× a. men's pants, or
b. baby toys.

Tell why you decided that.

Criterion for correctness: Stock men's pants because that is probably what the people demand (want and are willing to pay for). Half credit for answers anticipating demand for toys.

14. Before special new fertilizers were found, some farmers did not plant the same crop on their land each year. They did something called "crop rotation." This means that one year they might plant cotton and another year they planted a different crop. Then they went back to cotton. This was because cotton used up certain minerals in the soil and their other crop used up different ones. It gave the soil a chance to build up minerals again. What was probably the economic reason farmers did this?

a. The farmers got bored planting the same crop so they changed just to make things interesting.
b. The farmers knew that some years people would want to buy cotton and some years people would want to buy other crops.
× c. There was a scarcity of minerals in the ground and farmers were trying to conserve the scarce resource.

15. There are many companies that earn money by cutting down trees and making the wood into lumber to use in building houses and other things. It takes years for a new tree to grow big enough for lumber. When all the trees in an area are cut down, the soil can wash away before all the new trees get a chance to grow. But if a company cuts down all the trees instead of just some, it will make more lumber and get more money *this year*. What is the economic reason a company might give up making more money and leave some of the trees to grow another year?

a. The trees are too pretty to cut them all down at once. The company wants to keep its land looking pretty.
b. The company only cuts down enough trees to make the amount of money they want this year. They don't care if they make any more money than that.
× c. The company only cuts down some trees because trees are a scarce resource. They give up making more money now so they can conserve some trees and later cut them to make money in other years.

16. Many people like to hunt deer. Some like to eat the deer meat and some like the fun of camping and hunting. Some like both. There are certain laws which limit the number of deer each person can kill each year. What is the economic reason people might want to have laws like that?

× a. Some people want to conserve a scarce resource. There is a limited number of deer and many people who want deer meat. If too many deer are killed in one year, there won't be enough adult deer left to have lots of baby deer (fawns). Soon there would be no deer left.
b. Some people think no one should kill any animal. They couldn't get a law passed that said no one could kill deer, so they wanted one that limited how many deer could be killed.
c. Some people think that eating deer meat is bad for people. They wanted a law limiting the number of deer that could be killed because it would keep people from eating so much deer meat.
d. Some people think hunting is a silly waste of time. They want to limit hunting so people will spend their time on better things.

17. Many years ago there were no sewing machines. Workers in factories made all the clothes by hand. Then a man named Elias Howe invented the sewing machine. A worker could make many more clothes each hour using a machine than he or she could when sewing them by hand. The owner of a clothing company knew that it would take the same amount of material for each dress and *less* labor for each dress than before. Do you think this might have changed his willingness to supply dresses?

Criterion for correctness: Yes, he was probably willing to supply more dresses at all prices.

18. In the whole world, there were only two places where people mined Zingo rocks. Zingo rocks were important to people because they would protect them from monsters if they wore one around their neck. One day Bobby Adams was walking along in his garden and tripped. He had fallen over a Zingo rock! He found that his garden was a good place for a new mine. The same week, Gloria, Barbara and Marty each found new Zingo rock mines, and each of them went into business. What do you predict happened to the quantity of Zingo rocks people were willing to supply?

× a. The quantity supplied probably went up.
  b. The quantity supplied probably went down.
  c. The quantity supplied probably stayed the same.

19. You are an inventor and invent a machine which will push toothpaste into the tubes very fast. Suppose that, until now, toothpaste companies had many workers pushing in the toothpaste with little sticks. If the companies buy your machines they can produce toothpaste cheaper. It will cost them less money to produce each tube of toothpaste. What do you think will happen to companies' willingness to supply toothpaste if they use your machine?

Criterion for correctness: They will probably be willing to supply more toothpaste at all prices.

20. In the town of Platt, lots of people had fun fishing in the river. Some people in Platt were not happy because they didn't have jobs to earn money. Store owners were unhappy because people without jobs didn't spend much money. One day a factory was built right near the river. A sign in town said, "Come to the factory. We want workers and will pay well." But the town newspaper said, "Fishing fun will be gone. The new factory will kill the fish." Is the new factory:

  a. "good" for the townspeople?
  b. "bad" for the townspeople?
× c. both "bad" and "good" for the townspeople?

Tell why you said that.

Criterion for correctness: The factory is "good" because it provides jobs, benefits merchants by more spending, and allows growth. The factory is "bad" because it takes away leisure time pleasures and fish, a possible productive resource.

21. Mr. Adams doesn't like the new school being built near his home. He says that it only does him the harm of having children around his house all the time. He says that since he has no children, schools don't do *him* any good at all. Mr. Smith says Mr. Adams is wrong. Pick the best economic reason for Mr. Smith to use to convince Mr. Adams that the externality of children attending school could benefit him personally.

× a. If children go to school and become educated, they will be better able to run the country well when Mr. Adams is old. In this way he will benefit from their going to school.
  b. Mr. Adams will benefit from the children going to school because the general level of spending on school supplies will increase.
  c. Mr. Adams will benefit from the children going to school because it will affect the price of gold in international exchange.

22. Farmer Harris wishes to sell five acres of his land and plans to spend the money he gets to buy materials to build a new barn. Farmer Harris wants $150 for the land and Mr. Jones wants to buy the land but only has $50 right now. He says he will pay the rest of the money ($100) at the rate of $10 per month for the next ten months. Farmer Harris wants to finish his barn in the next two months (before the fall harvest) and won't have enough money by then if he sells the land to Mr. Jones. Farmer Harris can't find anybody with $150 cash who wants to buy his land. How would a bank or loan company help Mr. Jones to pay the full price for the land right now?

Criterion for correctness: Mr. Jones could borrow $100 from a bank. Added to his $50, he could pay Farmer Harris right now and pay off the bank over the next year, including interest for the use of its money.

23. In the little town of York there was no general store. People drove their wagons to the next town to buy the things they wanted. One day the Walker family started a store in York. People were happy to shop in their own town and not to have to drive so far away. But many people couldn't get what they wanted to buy at Walker's store so they started to go to the next town again. Mrs. Walker said that they didn't have enough money yet to stock all the things people wanted to buy and that they would go out of business if people shopped in the next town. If you were a banker and loaned the Walkers money, how would you help the Walkers, the town people, and yourself?

a. I would be helping the Walkers because:
b. I would be helping the townspeople because:
c. I would be helping myself because:

Criterion for correctness:

a. Loaning money to the Walkers allows them to stock the goods demanded and to regain customers who would then be satisfied to shop in York.
b. The townspeople wouldn't have to go into the next town to shop. Time and effort would be saved.
c. The banker would be earning interest on the money loaned, and (optional) building good will.

Background Information and Questions

These pages list specific learnings and questions applicable to them as they apply to each of the six parts of the project.

Background Information	**Questions**
Part I	Part I
1. Certain goods and services are desired by members of our town.	1. Who should be allowed to decide what our town should produce?
2. If we are not able to produce some of these goods ourselves, we may get them from somewhere through a system of economic exchange.	2. How much of each item should we produce (i.e., how many cattle, how many crops will have to be planted, etc.)?
3. We are limited in what we can produce by four major things: a. The natural resources available to us.	3. Should we have a division of labor to produce these things, or should each person produce everything she or he wants for her or himself?

b. The amount of capital we can secure. c. The amount of labor available. d. The number of people with management ability in our group.	4. How should we decide who is to do each job?

Background Information	Questions
Part II	Part II
Section A	*Section A*
1. When we use our resources to create a certain type of town, we have lost the chance to create another type of town (i.e., if you use your land for farming, you cannot use it for cattle.)	1. How do our wants determine the kinds of jobs that would be available in each type of town
2. Our resources are limited. We do not have as much of everything as we want.	2. For which type of town are our natural resources best suited? Why?
3. Once the resources are used up, they are gone.	3. How are the job skills we possess going to affect the type of town we choose?
4. Our wants determine how our resources will be used. 5. Not everyone has the same wants.	4. If we decide on one type of town and start setting it up, what problems would we face if we wanted to change our minds?
Section B	*Section B*
1. The types and amounts of goods the store owner will stock depend on consumer demands.	1. What determines the type of goods we want in the store?
2. If demands change, the store owner will have to change what he keeps on the shelves.	2. How does the store owner know how much of each thing to keep on hand?
3. The store owner sometimes influences customer demands.	3. How are our demands influenced by what others in our town think?
4. Advertising influences customer demands.	4. What might cause our demands to change?
5. The various communications media influence customer demands.	5. Why will some items need to be kept in stock only at certain times? What type of items might these be?

Background Information	Questions
Part III	Part III
Section A	*Section A*
1. Some resources are nonrenewable.	1. From the alternative ways that have been suggested, how can we select the best methods for conserving these resources?
2. New ways of using our known natural resources open up new frontiers.	2. What are some new ways in which our resources can be used?
3. Discovery of previously untapped resources can lead to change.	3 How would these new ways affect us economically as a town and as individuals? 4. Do we have any resources that have not been used? 5. What alternative uses can we make of these resources? 6. How might each use change our lives economically? 7. What new jobs might we create from these resources? 8. What problems might we now face that we did not have before?
Section B	*Section B*
1. Normal population growth affects the make-up of a town.	1. What would cause people to want to immigrate into our town? 2. How might their consumer wants differ from ours? 3. How might these demands change the economic structures of our town?
2. New people moving in bring new and varied skills.	4. What skills might immigrants bring with them that we do not have now?
3. The amount and type of education available affect the economic structure of the town.	5. What types of education are available in our area?
4. Change can be both beneficial and harmful.	

5. Consumer demands change as the make-up of the population changes.	
	6. What new types of education might be beneficial to our people? What would we have to do to get these types of education for our people?
	7. What effect would the amount and type of education have on the economic structure of our town?
6. Decline in population can affect the economic structure of an area.	8. What things might lead to a decline in the population of our town?
	9. How could this be prevented?
	10. What could be the result of such a decline if it were to continue for a long period of time?

Background Information	Questions
Part IV	Part IV
Section A	*Section A*
1. Pooling knowledge and skills increases productivity.	1. What new mining techniques might increase productivity?
2. The invention of new methods and machinery can increase output.	2. Does the independent miner lose anything by not joining the company?
3. Sometimes when efficiency is high fewer individuals are required and unemployment may result.	3. What problems might arise when better methods and machinery are used?
	4. What new jobs might be created?
4. Division of labor can cut down the number of working hours and increase leisure time.	5. If people have to work fewer hours per day, what might they want to do with their leisure time?
	6. How might extra leisure time affect the economy of our town?
Section B	*Section B*
1. Workers can produce a greater quantity of goods with less effort if production becomes more efficient.	1. Under what circumstances might new skills or training be required?
2. Lower-priced goods could result from increased productivity.	2. List circumstances under which new jobs might be created if production became more efficient. When might this decrease the number of jobs?
3. When more goods are produced, the income of the worker usually increases.	3. How would you expect increased production to affect worker income?
4. The owner can increase his profits by increasing the amount produced by each worker.	4. How might increased production affect the price of a product?
5. Frequently there are more efficient uses of resources.	
6. Unemployment could result if fewer people are demanded to do the work under more efficient methods.	
7. New skills may have to be learned when new jobs are created.	

Background Information	Questions
Part V	Part V
Section A	*Section A*
1. Credit allows consumers to satisfy their needs now and pay later.	1. How does credit help people to purchase desired goods?
2. Some people are good credit risks and others are not.	2. Why can't all people obtain credit?
3. When a manager extends too much credit, (s)he may have to take a loss.	3. Under what circumstances may the group extending credit be hurt?
4. Loans are another form of credit.	4. How do loans and credit differ?
Section B	*Section B*
1. Money and credit enable us to purchase things we want.	1. What services do banks provide?
2. One does not have to purchase all goods and services with cash.	2. How do banks make money?
3. Banks can provide loans to individuals and companies.	
4. Banks are institutions which can transfer money between individuals and businesses.	

5. A person's credit rating can influence his/her purchasing power.	3. Why can a person with a good credit rating purchase more than one with a poor rating? 4. In what ways could the use of extensive credit be dangerous?
6. Interest is the money paid for the use of a loan.	5. How do interest payments affect the total price paid for goods?

Background Information	**Questions**
Part VI	Part VI
1. The government regulates some economic activities for the "benefit" of the community.	1. What types of economic activities are regulated by the government? Why?
2. Taxes pay for improvements in the community.	2. Name some ways in which taxes might be used to improve a community.
3. There are several different kinds of taxes: income tax, property tax, sales tax, and business tax.	3. What are the different kinds of taxation?
4. The amount of income tax a person pays may depend on the amount of his income.	4. Why is the income tax generally considered more fair for the poor than the sales tax?
5. People or businesses with large incomes are normally taxed more than those with less income.	
6. Property value must be assessed before property can be taxed.	5. How is the amount of tax to be paid on property determined?

Films

This is a list of films which a teacher might want to use with the lessons in this volume. Films are listed under the part of the unit to which they apply. Annotations and sources are found in the Suggested Supplementary Materials (pages 121-124) of this book.

Introduction

CHILDREN OF THE WAGON TRAIN
THE OREGON TRAIL
HAD YOU LIVED THEN

Part I

CALIFORNIA AND ITS NATURAL RESOURCES

Part II

CALIFORNIA AND GOLD

Part III

CONSERVATION FOR BEGINNERS
CONSERVING OUR NATURAL RESOURCES
WILD RIVER

Part IV

ECONOMICS — IT'S ELEMENTARY
RICE
WHAT IS AUTOMATION?

Part V

MONEY IN THE BANK — AND OUT
IT'S ALL MINE

Part VI

WHY WE HAVE TAXES

Adaptation Suggestions

Although this unit specifies California as the locale of the various simulation activities, and focuses on the internal westward expansion of the U.S., adaptations are easily possible for other geographical regions and other time periods. Questions for review and discussion, indeed even activities, remain largely unchanged should you wish to adapt the unit to simulate the settlement of your state or geographical region. The imaginary journey which initiates the unit could even be one of the journeys undertaken by early (17th or 18th century) colonists from Europe settling the eastern U.S., or one undertaken by those who settled the westernmost portions of the country long before talk of U.S. annexation, thus changing the unit to a study of economic problems encountered in the very early days of the country.

Such an adaptation would find the children following the journeys of the founders of, for example, Jamestown, or the earliest settlers in the San Francisco Bay Area. The concentration can be on your own state history just as easily. For example, Utah teachers may want to adapt this unit to following the journey of early Mormon settlers and reenacting their specific economic problems in settling the Great Salt Lake region. Major changes for this type of adaptation are in the natural resources referred to in your discussions and in the probable economic base of the area. Crops grown in the simulated community, for example, would reflect those actually grown by early settlers of your region, with the accompanying problems of weather conditions, soil suitability, etc.

The structure of your simulated town and the range of variations in possible solutions to economic problems will be limited by the time period in which your area was settled. The later the period in history with which you deal, the greater the range of technological change and available knowledge the children may use to solve their economic problems.

III. Systems: The Mini-Society

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Introduction to the Mini-Society

The Mini-Society is an experience-based instructional system created by Dr. Marilyn Kourilsky. The author has allowed us to utilize segments of this system in our Master Curriculum Guide to illustrate what can be accomplished in the intermediate grades in economic education. For more information concerning this instructional system and the dilemma situations not included in this guide, contact Dr. Kourilsky at the U.C.L.A. Center for Economic Education, 405 Hilgard Avenue, Los Angeles, CA 90024, and/or refer to *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences* (revised edition, 1977).

The Mini-Society is based on three principles of learning theory. We know that learning is enhanced for a student: (1) by real as opposed to vicarious experiences; (2) by playing active rather than passive roles in learning situations; and (3) by participating in the decision whose consequences he or she will bear. Thus, we systematically provide an opportunity for children to create their own society including an alive and vital economic system.

The Mini-Society works in practice as follows: The teachers are presented with a set of procedures for helping the children (third, fourth, fifth and sixth graders) to generate a working economic system in their classrooms. The system is initiated by a scarcity situation, activated by the teacher, such as "not enough felt-tip pens to go around." The children then meet in a discussion group to develop their standards of conduct and activities for which they will be paid in the currency of the mini-economy. The currency will be used to bid for the felt-tip pens and thereby settle the question of who gets them. Immediately the class is motivated to develop, design and print its own currency. As the system swings into action, children begin to buy and sell goods and services such as pencils, erasers, posters, logos for businesses, and their time. They also rent "space" in the classroom to conduct business.

Situations later arise which challenge the children to develop institutions to facilitate the smooth operation of their system. Unequal distribution of wealth and varying spending patterns create a demand for lending institutions, banks and insurance companies.

Some entrepreneurs may sell shares of stock in their firms in order to raise the necessary capital, and a type of stockmarket is created. As the children seek advice on how to establish various businesses, a system evolves in which the teacher plays the role of paid consultant.

Trade is further enhanced through weekly auctions in which children bid for goods and services provided by other children. Auctioneers take out licenses from the government (whose functions are performed by the teacher).

In response to consumer demand, children develop their own firms, ranging from simple billfold factories to elaborately conceived insurance companies.

The role of the teacher, in addition to acting as a paid consultant, is to debrief economic and other types of dilemmas as they occur in the classroom—e.g., loss of customers through irrational pricing, etc. These postexperience debriefing sessions are the key to increasing the economic literacy of our youngsters.

The Mini-Society Instructional System is comprised of three parts. Part I, "Getting Mini-Society Started," describes in detail the teacher's responsibilities in getting the system started, the children's responsibilities in getting the system started, and how to arrange the first receiving of income by Mini-Society citizens. In Part II, "Moving the Mini-Society Ahead," two economic indicators are described so that the teacher will know whether economic activity and interactions are progressing satisfactorily. Six methods for facilitating interaction and business activity are discussed and illustrated. In Part III, "Enriching the Mini-Society," teachers are provided with guidelines for conducting postexperience debriefings regarding Mini-Society dilemmas. Eighteen sample lessons involving economics and values-clarification are included. In Mini-Society, the teacher waits for an event to occur that has economic dimensions, then focuses on the event, reviewing the details of the classroom occurrence, and proceeds to obtain all the economic education mileage that can be gleaned from the event. There are fifteen of these events that have occurred in some manifestation in over 300 Mini-Societies. The following are sample debriefing lessons of these case histories. Those most responsible, in addition to the author, for generating ideas and activities for the following debriefings include Ellen Goldman, Darlene Wilson, Lucy Lockhart-Mummery, Garry Schulman, and Michaele Scholes.

First, we shall describe the dilemmas that occur and then present the specific debriefings of five of these dilemmas.

The activities for each dilemma were written to assist you in the teaching and reinforcement of basic economic concepts. Since they are examples of situations that have occurred in other Mini-Societies, you can adapt these activities for use in your classroom by using the basic framework of the activity and fitting it into the context of your Mini-Society. For example, substitute the name of your currency and the type of business involved for the ones in the dilemma.

At the beginning of a Mini-Society, when children are selecting activities for which they will be paid, many believe that the more money they decide to have printed, the richer they will be. In fact, Tracy in the country of Starville contended that they could solve *all* Mini-Society economic problems at any time by just allowing the teacher to print more and more money. She had many followers who thought this a unique and brilliant economic point-of-view. The teacher, envisioning her arm falling off at the ditto machine, became highly motivated to do a lesson on money and inflation—the lesson indicating essentially that the richness or wealth of an individual or country depends upon the amount of goods and services it can command. (See Dilemma 1: We Thought We Could Become Rich Quick.)

Most teachers report that children become enraged as they see other children opening businesses similar to their own. There are ardent cries such as "He stole my idea—you're the teacher, so do something." Kelly, an aspiring entrepreneur, noticed almost as soon as money had been disseminated, that the children had nowhere to put their money. She produced 15 hand-made wallets and sold them within the first ten minutes of Mini-Society. Since she had done so well the day before, she produced 20 wallets the next day and raised her price. However, Seth produced better-looking wallets—some of which contained a penny for "good luck." Seth sold all his wallets and Kelly had to lower her price substantially in order to sell the wallets she had produced. She asked the teacher if it was all right to challenge Seth to a duel (since she was bigger than Seth). The teacher, however, decided it was more expedient to do a debriefing lesson on Competition vs. Monopoly—the effect on consumer prices-producer profits. (See Dilemma: But It Was My Idea.*) Kelly, even after the lesson, made a motion that only one of each type of business be allowed to operate within the classroom. It was seconded by Terry who had suffered competition in his snapshot business. However, the majority of the class, who were enjoying the effects of freedom of entry through paying lower prices, favored freedom of competition and the resolution was defeated 23-4. This particular incident has occurred in one form or another in every Mini-Society classroom.

Marlo and Luisa had been friends since Kindergarten and after three weeks of the operation of Starville, their Mini-Society, they decided to go into partnership and open up a beauty salon. They brought in supplies from home and school and the neighborhood, including combs and brushes, scissors, hair gloss, tongs, hair spray, clips, barrettes, bobby pins, ribbons, wash'n dries, and various types of Avon samples. Pretty soon they started arguing about business procedures. Marlo said Luisa was a slob and was using dirty brushes and spending more time styling the boys' hair than the girls'. Marlo also said that Luisa was only doing three heads per Mini-Society Session whereas she was doing six. Marlo insisted she should therefore get more of the money. Luisa maintained that she was providing "quality" hairstyling and was a better comber. Anyway, she emphasized that she had brought in almost all the supplies and it was only fair that Marlo work harder if they were to share the profits. Since they had not decided in advance how they would set up the partnership and what the responsibilities of each partner were to be, the bickering continued until the teacher conducted a debriefing. (See Dilemma: I've Grown Allergic to My Partner.) They then decided on an informal contract, set up a corporation and eventually brought in a third "partner" who owned a blow-dryer. Partners disagreeing is not an unusual problem in most Mini-Societies. However, with a little teacher guidance, through debriefing, most of these problems are resolved.

Phillip was a terrific piano teacher. He had his own very original method for teaching piano and charged 25 "quets" for a fifteen-minute lesson. Children were so anxious to learn piano that noisy lines were forming and Phillip complained that he had no time to spend his money. "I have become a slave to my work," he moaned. Phillip, an acute observer of the economic process, had noticed that when the teacher was providing 15-minute consulting service for 5 "quets," she resolved the problem of long lines by raising her price, but Phillip was already getting 25 quets for 15 minutes of service. Was it fair to raise his price? Also, some of the children were complaining that Phillip had so many more children demanding piano lessons than could be handled, that he was "cheating" and giving the lessons to his good friends. The teacher, realizing that this dilemma could at some time face any of them (she had experienced it herself), debriefed the students on the rationing function of price. (See Dilemma 7: Shortages—Shortages—Shortages or Who Gets The Piano Lessons?) In the lesson, in addition to describing the rationing function of price, she elicited suggestions on how to increase supply and ways to reduce demand. Three days later Loren brought in a violin, Jerry rented a couple of harmonicas, and Linda started a jazz dancing class. Phillip raised his price to 27 quets. There were no more lines, and he even had approximately 10 minutes a day to spend in consumption. The children were later able to compare Phillip's situation with the U.S. gas shortage and suggested some creative solutions that perhaps should be brought to the attention of Congress.

Norma faced a very different situation. She had started a stationery store and was charging 10 "saves" per 5 pieces of stationery. The first day of business she wore a new dress, smiled warmly and waited for customers. Only one customer bought her stationery. The second day she wore another new dress, continued to smile and still sold only 2 sets of stationery. The third day she wore a pantsuit, was in a state of semifrown and sold only 1 more set of stationery. Finally, she got an idea. She gave a free sample to Lucy who absolutely raved about the stationery. Norma then hired Randy to make a sign that included all the nice things that Lucy had said about her stationery. Other children saw the ad and ordered personalized stationery until Norma had as many orders as she could fill. The teacher then utilized Norma's experience to show how advertising could increase demand and thereby increase profits. She also showed the children how to conduct a market survey to find out if demand existed

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*Some Dilemmas which are referred to are not found in this volume, but in Dr. Kourilsky's book ***Beyond Simulation***.

for their proposed good or service, and at what price children were willing to buy the good or service. The class later converted their market surveys into demand curves and actually observed and discussed why all their demand curves sloped downward to the right. They later discussed various ways to affect demand, emphasizing the effect of tastes and preferences, incomes and substitutes. (See Dilemma 6: How Do I Know Anybody Will Buy My Product?) They had a little trouble understanding how changes in the price of a good affected the demand for complementary goods; luckily the sixth graders learned about the role of complements in affecting demand when Dan, who owned two tennis rackets, sold tennis lessons on the condition the children provided their own tennis balls. When the price of tennis balls went up, the demand for Dan's tennis lessons decreased. Many disappointed businessmen and women were encouraged when they learned how to become entrepreneurs by converting into practice the principles of demand determinants.

Roger, however, had a rather unique experience. He had been making his own unique raisin-based health food mixture. After Halloween the class brought in loads of candy, popcorn, etc., and Roger decided to declare bankruptcy. The class became horrified because in their heart-of-hearts they knew that the raisin mixture was healthy and they really didn't want to see it disappear entirely. Laura and Stacy almost simultaneously shouted at the class meeting, "Let's give Roger more money. Right now he only gets 6 'saves' a package. Let's promise him 15 'saves' a package and he can stay in business." The class thought this a fair idea. The next day he came in with twice as many health food packages as he was previously supplying, but the class bought even less than usual at 15 "saves." Roger said that they had put him in a worse fix than before and quoted his father as saying, "If they are such 'do-gooders' tell them to buy your surplus raisins." The children didn't like that idea, told Roger to lower his price, and two weeks later when the post-Halloween candy had become stale, Roger's business began to thrive again. The teacher used this opportunity to hold a debriefing session on price floors—differentiating between the effects of farm price supports and minimum wage laws. (See Dilemma: The Case of The Unbought Raisins.) Over half of the children were able to relate Roger's experience to the real world.

Larry, the envy of his whole Mini-Society class, found out from his auditor that he had made more money than anyone in the class that month, but Larry only frowned. He was a jobber in the junk business and wanted to go into producing race cars as a business. His auditor told him he'd be crazy to change because he was making so much money in the junk field. Larry, however, thought he could make even more money producing, selling, and racing cars. The teacher used this event to motivate a debriefing lesson on opportunity cost. (See Dilemma: Should I Change My Job?) He distinguished between accounting cost and profit and economic cost and profit. The entire class soon saw that even if the difference between your total cost and total revenue was extraordinary, you could still be experiencing an economic loss if you could be making even more money in some other business or employment.

This question of whether to change jobs as well as the question of "To Produce or Not to Produce" soon becomes very much a matter of considering one's opportunity cost. This debriefing should be repeated at least three times in a Mini-Society so that children can personalize cost-benefit analyses.

An inevitable mishap prevalent in any Mini-Society and especially tragic in the country called "Land of Intellectual Giants" is "whether to hire a buddy." Emily, who makes beautiful artificial flower arrangements, decided to hire Sandy, who unfortunately, rarely washes her hands, works slowly and was renowned as the class klutz. Her redeeming qualities were her sweet temperament and the fact that she was in Emily's Brownie troop and a best friend. However, it was costing Emily more to keep Sandy on than to do all the work herself. To add insult to injury, Sandy had an allergy and was constantly sneezing on the flower arrangements. Another complicating factor was that Sandy was demanding a raise. When denied the raise, she complained to the teacher and started to bad-mouth Emily. The teacher seized upon the opportunity to conduct a values-clarification debriefing session and to review that section of the circular flow diagram on making the decision of *how* to produce by figuring out the price/productivity ratio. Later, he helped Emily to find her comparative advantage which turned out to be that of a game center referee. The class used Emily's and Sandy's experience to discuss in a rudimentary fashion the idea of comparative advantage. Happily, Emily and Sandy revived their friendship and to this day are good pals. However, the real and often delicate question that plagues all aspiring Mini-Society entrepreneurs is not only what to produce, but how to produce. (See Dilemma 10: Should I Hire My Buddy?)

Mr. Dash visited a Mini-Society class and became very interested in purchasing a child's original painting. He offered her two dollars for her artistic endeavor. She replied, "Your money is no good in our country, Frodoville. We only accept 'hobbits'." Mr. Dash, a very determined man, went to one of the class banks to find out if there was an exchange rate. The child said, "We haven't gotten around to that yet." Mr. Dash asked if he could borrow some hobbits. The banker told him if he could get three felt-tip pens as collateral, he would loan him 20 "hobbits" at 10 percent interest. If Mr. Dash did not return the money within a week, the banker said he would sell the pens at the class auction. Similar situations arise in most Mini-Society classrooms. For example, in many schools, there are several Mini-Society countries which all use different currencies. One class's currency may not be accepted in another class until an exchange rate is established between the two countries. When such situations arise, the teacher has a splendid opportunity to introduce a debriefing lesson on the role and functions of money in a society, including barter vs. money. (See Dilemma 2: We Only Accept Quibblings in Poohville.)

As children accumulate money for jobs and businesses, they soon find a safety deposit box from home is not the ideal way to keep their money. This realization will often lead to the formation of a bank. Much later in the society, a banker may realize that if (s)he is allowed to keep the money for longer time periods, (s)he can make money by investing it in classroom businesses. Thus, the savings function of a bank becomes a natural lesson that evolves. (See Dilemma: Do We Want a Bank?) The concept of central banking does not naturally evolve in Mini-Societies. Some teachers may choose, however, to discuss the U.S. central banking system. Almost all report that the children are still too unsophisticated to understand more than the bare rudiments of central banking and have not repeated the lesson in subsequent Mini-Society classes.

In several Mini-Societies, children would still prefer to keep their money in cigar boxes or mini-safes. It is not uncommon for a theft to occur. In fact, in one class, several children put the equivalent of mouse-traps in their boxes to avoid stealing. One unfortunate boy became a victim of his own trap when he forgot to disarm it before removing his money for an exciting purchase. Teachers have had success in debriefing this situation and stealing has become eliminated in most Mini-Societies. (See Dilemma: It Is Easier to Steal Than to Work.)

Jerry, a Mini-Society citizen in the Valley of Friends and an established "A" student, tried to charge his teacher for correct answers to homework problems. The teacher responded by explaining to the class that there are certain acts one performs for nonmonetary remuneration. She initiated a values-clarification lesson on those actions one should do by virtue of the fact that one is a member of the human race or classroom, etc., versus those actions one does for financial compensation. (See Dilemma: The Non-Monetary Decision.)

In a few instances the following situation may occur. Some of the children in UCF (United Class of Fonzies) had not been satisfied with the results of their business decisions. Sara decided to produce chocolate fudge. It sounded like a good idea, but her fudge was sugary and she had a lot unsold. It grew increasingly less desirable as the week progressed and she went bankrupt by Friday.

Juan made "Jaws" drawings to stick on notebooks. He used all his spare time and produced over 100 of the hand-made stickers. Soon almost everyone had one or more and he still had dozens left over. He complained that the teacher should have told him there were too many stickers to sell.

Sara and Juan, along with some other children, made a proposal at the class meeting. They wanted the teacher or a class committee to decide what products should be made and how much of each should be produced. They argued that it would save time, prevent disappointments and insure that everybody would sell all their products. Others in the class argued that they didn't want one person or one committee planning so much for them. They said they would rather make their own decisions and take the chance that they might be wrong or benefit from being right. The class defeated Sara and Juan's proposal. (One entrepreneur offered to give them business advice for a modest fee.) The teacher used their proposal to draw parallels between their society and the models of market and planned economies. (See Dilemma: Why Are Some People Rich and Others Poor?)

Teachers will soon realize that most events which occur in Mini-Society provide opportunities for a variety of economic debriefings. For example, when Larry wanted to change from his junk business to a race-car business, the teacher chose to focus on the concept of opportunity cost. He might have just as easily focused on accounting vs. economic profit.

Dilemma 1

We Thought We Could Become Rich Quick (Money and Inflation)

I. Objectives

1. The learner will be able to explain why the real wealth of a country depends upon the goods and services it is able to produce as opposed to the amount of money it prints.
2. The student will be able to explain why an increase in the money supply without an increase in production of goods and services may lead to inflation.

II. Activities

1. After the government prints a designated amount of money and the Mini-Society is initiated, record the average price level (i.e., during one week, record the price of each item offered for sale and determine the average price of the item for that week). Then double the currency and specifically show the phenomenon of inflation—a rise in average price level.

2. Take a survey among the members of the class to determine four or five top-ranking wants of the students (goods or services they would like to have). Then divide the class into four groups with each group being assigned a different income for individuals in that group: $10, $100, $1000, etc. (i.e., each individual in Group A would have an income of $10; each in Group B $100, etc.). Have each group indicate how much they would be willing to spend for each of the wants previously identified.

3. Have each child list what s(he) would like to buy and what s(he) would be willing to spend for it. Give each child $10 more and see how many would be willing to spend more money for the same good—thus raising its price.

4. Have children draw an inflation cartoon showing that one symptom of inflation is more money chasing fewer goods.

5. At an auction have eight goods—two each of four different items. After the first four goods are sold, record the average price for each. Before selling the other four goods double the money supply and then continue the auction for the remaining four identical objects. (Do not inform the students in advance that a second group of identical objects is being offered.)

6. Form committees and have each choose one of the following products—mayonnaise, salad oil, peanut butter, bread, soft drinks, soap. Have the committee trace the price of this product over the last few years. Have them interview parents and store-keepers. For more gifted students, ask them to use the microfilm at the library. (*Note:* If worse comes to worse, you can trace the price of the product.)

7. Keep exact records of the *culminating auction of Mini-Society* and (when Mini-Society comes to an end) conduct a discussion of the phenomenally high prices which were paid for the last few items. Emphasize that the reason they were willing to pay such high prices for these goods was that they knew the money would soon be worthless and they would rather convert what money they had into goods or services.

III. Economic Clarification of Ideas and Principles

Often in the course of a Mini-Society the children decide that the way to have a wealthy society is for the government simply to print more and more money. It is the same instinct (more is better) that often leads the children to pay themselves large amounts of currency in the beginning stages of Mini-Society when they decide on those few payments to infuse the first money into the system. They have internalized the idea that more money (a greater amount of currency in hand) means greater wealth and purchasing power. Of course, if they decide to pay themselves in large amounts of currency in the initial phase of the system, price levels simply start out high. They have a "relatively" inflated money system since the level of demand is determined (at least in part) by the level of income of those doing the demanding. But what happens if the system is already in progress and the children suggest printing more money, perhaps as a way out of government debt? This situation most often occurs the first time students realize (or are told) that the treasury is depleted because of government expenditures and that, if they wish the continuance of governmental services, they must tax themselves to pay for these. Not enjoying the payment of taxes anymore than the rest of us, the students look for a way out of the dilemma, and often the suggestion is simply to print more money. In debriefing this dilemma situation, we are dealing with the concept of inflation.

The children will soon observe that inflation is caused by an increase in the money supply (multiplied by its velocity) while the quantity of goods and services available in their Mini-Society either remains constant or decreases. In their words they see "more money chasing fewer goods." The result of the children having more money to spend on the same number of goods is that the price of the goods they want to buy goes up. They are now paying higher prices for the same package of goods and services because *production* of goods and services has *not* increased; just the amount of money available to purchase the same goods and services has increased. They will soon realize that their society is not richer even though the government has printed more money. Like King Midas, they will ultimately learn "the hard way" that the *real wealth* of a *Mini-Society* depends on the amount of goods and services the society is able to produce and not on the government printing more money.

In the Mini-Society, when the money supply is increased, we have found that velocity does not change significantly enough to counter the situation of this increase versus a constant level of products available.

Dilemma 2

We Only Accept Quibblings In Poohville (Money)

I. Objectives

1. The children will be able to explain that what gives money value is that it is accepted in exchange for goods and services.
2. The children will be able to explain that in societies in which currency does not exist or where the currency is no longer accepted, trade (barter) becomes the method of exchange.

II. Activities

1. Utilizing examples from your own Mini-Society, explain why you would not accept another class's currency in exchange for the goods you have produced. (Elicit from the class that the other classes' currencies have no value in your class because other children will not accept them in exchange for goods and services.)

2. Have a representative from your class attempt to buy lunch with your class's currency. Tell the child to be adamant about the value of the class currency. Tell him/her to insist that the currency has value. (Meanwhile apprise the cafeteria cashier of what you are doing so that he/she may explain to the child why the money is not acceptable.) Have the child report to the class about the entire incident.

3. In Goldville a child has xeroxed in black and white the currency which was on colored paper. The class refused to accept this counterfeit currency. Why?

4. Announce a day in which no currency can be used. Have the children barter for their goods and services in their Mini-Society. Discuss the way it differed from their money exchange system. Were there any children unable to negotiate a trade who would have been successful in a money economy. Why?

5. Role-play the following situation and resolve what effect it would have on the U.S. economy:

By Golden Eagle Carrier Pigeon news comes exclusively to your class that all the gold from Fort Knox has been stolen by Gold Thumb. Your class in a conference decides to tell nobody, not even their parents, what has happened. Reenact the class conference and then discuss why keeping the event secret would cause the situation to have no effect on the economy.

6. If the concept of money is still not clear, within the context of their own Mini-Society, as an added reference you might show the film *Why We Use Money: The Fisherman Who Needed a Knife*.

III. Economic Clarification of Ideas and Principles

What happens when two Mini-Society classes with different currencies meet for international trade? What occurs the day Elise tries to buy goods and services in Mini-Society with currency from her Monopoly set? What happens when parents or other visitors to Mini-Society try to purchase products with U.S. coins and currency? Students new to Mini-Society may say, "We don't use that kind of money here." Second-term citizens may show their increased economic sophistication by indicating the exchange rate between the two currencies.

We are dealing with two basic economic concepts: the value of money, and barter as a substitute for currency.

There are some common misconceptions among children regarding the nature of money, and we see some of these same misconceptions among the adult population. Many children believe that currency has some inherent value. To many, the "value" of a five-dollar-bill is simply "five dollars." In Mini-Society, children begin to understand that this is a meaningless phrase. The value of currency is seen in terms of the goods and services the currency will buy. This ties in with the concept of opportunity cost. When we say that a candy bar "costs" 15¢, we are indicating that we are giving up the next best alternative use of the 15¢ when we buy the candy bar.

The misconception concerning the value of money is tied to another common set of misconceptions: that currency is accepted in exchange for goods and services because the government has proclaimed that it is "money" or because of the "backing of currency" in gold and silver. Discussion on this point should center on what really makes a money system "work." *Money* is anything commonly accepted in a society in exchange for goods and services. It needn't theoretically have backing in terms of a valuable scarce resource such as gold. Money is money and is accepted in a society as such because of the faith people have in the money. If I accept currency in exchange for my teaching services, it is because I believe that I will be able to use the money to pay my rent, buy food, put gas in my car and go to the movies. In turn, the business people with whom I deal accept my money because they have faith that they can use it to pay for their factors of production, including their own profits. It is this faith that "backs" a money system in the true sense.

What happens when people loose faith in their money or when no money system has been developed? People still exchange goods and services. However, instead of exchanging the product for money (which they can then use to purchase other goods and services) they exchange it for other goods and services. This is called a barter system. Barter implies agreement between two parties that the items they are exchanging are of equal value. A barter system entails more time and effort than dealing with a money system because often parties must search for an acceptable exchange or go through a long series of exchanges to get the items they wanted in the first place. However, there are certain advantages to a barter system, too. For example, when times are "hard," rather than decreasing production, citizens in a barter economy tend to produce more goods and services instead of fewer as happens in a money economy.

Barter systems were prevalent among Americans during World War II. Citizens often bartered for scarce goods and services with their rationing coupons rather than by using money. In prisoner-of-war camps, the soldiers often used items such as cigarettes with which to barter for other things they wanted. In fact, cigarettes were so common an exchange item in some camps that the cigarettes became money and were accepted in exchange for goods and services. We see that when currency is not available or useful to people, they evolve barter systems to deal with their desire for exchange.

Dilemma 6

How Do I Know Anybody Will Buy My Product? (Market Survey, Demand, Risk-Taking and Entrepreneurship)

I. Objectives

1. The learner will be able to list and explain three determinants of demand: changes in taste, changes in income, and changes of price of substitutes and complements.

2. The learner will be able to cite examples from his/her Mini-Society where changes in demand have occurred.

II. Activities

1. Elicit responses from the class on different ways to determine in advance whether other children will be likely to buy your product.

2. Show the children how to conduct a market survey to ascertain potential demand. (For instance, take the example of Judy selling or planning to sell cookies in the Mini-Society. In her first survey, she could ascertain what were the class's two favorite cookies. In the second survey, she could find out how much they would be willing to pay for alternative numbers of cookies.)

Example:
At the following prices, how many chocolate chip cookies would you be willing to by on any one day?

Price per cookie	*Quantity*
$.20	______
$.15	______
$.10	______
$.05	______

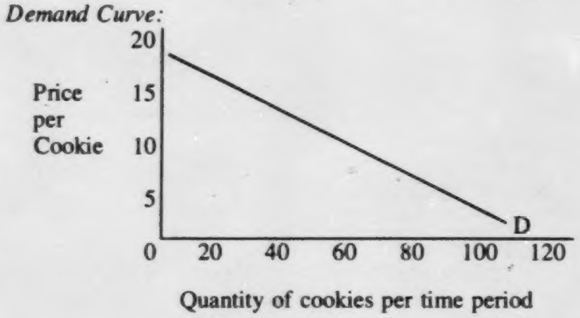
At the following prices how many peanut butter cookies would you be willing to buy on any one day? (Do the same sort of chart.)

After completing the survey, tabulate all the results of the surveys and show the quantity demanded at alternative prices for both items. Use a demand schedule. Example:

Chocolate Chip Cookies

Price per Cookie	*Quantity Demanded*
$.20	______
$.15	______
$.10	______
$.05	______

In a lesson with the children, convert the demand schedule into a



Next have Judy decide how many cookies she is willing to supply at the alternative prices. Have her compute all costs including time, payment to workers, etc., of producing cookies. Show results of the cost analysis by drawing a supply schedule and supply curve (analogous to demand schedule and demand curve above). Determine price and quantity on the basis of *supply and demand*. Figure out anticipated profits.

3. Select a particular product in the classroom economy, and ask the children to identify what factors would make them want *more* or *less* of the product (e.g., ice cream/cold day and warm day; ice cream/after a pay raise or after taxes; ice cream/after the price of cones has gone down; ice cream/before and after lunch).

4. Select any business that has experienced either dramatic increases or decreases in the demand for its product. Have the owner give a short report on what factors he or she thought caused the increase or decrease (e.g., advertising, tax decrease, change in the price of a related product).

5. Explain the difference between a change in demand and a movement along the demand curve. (For further information see Paul A. Samuelson, *Economics*. New York: McGraw-Hill Book Co., any edition.)

6. Have the child construct a bar graph of the last two weeks of his/her sales records showing quantity on the vertical axis and time period on the horizontal axis. Hypothesize the cause for any dramatic change in sales.

7. Have the children make up their own advertisements to change taste in a variety of ways (e.g., posters, film strips, cartoons, newspaper ads, radio spots).

III. Economic Clarification of Ideas and Principles

The title of this dilemma is a cry sometimes spoken and often hidden by young Mini-Society citizens. Many students would like to go into business or expand their current businesses but are hesitant because they fear failure. Determining whether the potential product will sell and whether a profit will probably be made is of great concern and can seem overwhelming enough to students to prevent them from entering the ranks of the entrepreneur. These fears can be soothed in a debriefing concerning elementary supply and demand, including determinants of demand and supply, and the way in which these two interact.

The first step in determining whether a good or service can be sold is to determine the demand through a demand schedule or market survey concerning the item. (See Activities portion for format.) Children should also be introduced at this time to the definition of demand and to its characteristics.

Demand is a specific economic concept defined as "wants backed by the ability (willingness) to pay." Demand refers to the way consumers act in purchasing products during some *specified time period*. Demand refers to the range of *alternative* prices for the item. When taking a market survey or determining a demand curve for a product, it is important to remember to specify the time period being referred to (tomorrow, for one hour, for the next week, for a year). It is also important to emphasize to children that they are being asked how many they would purchase if the price were, for example, 20 "quets" and alternatively, how many they would purchase if the price were 15 "quets" (and so on for the range in which the entrepreneur is interested). They are *not* being asked how many they would purchase at 15 "quets" in addition to how many they would purchase at 20 "quets" per item.

In discussing why people demand differing quantities of goods at varying prices, emphasize that consumers tend to demand more of a product at lower prices and less of the product at higher prices. This is the "universal law of downward-sloping demand" and is true of the demand for virtually any good or service.

The demand of consumers for a good or service is determined by several factors. These are (1) their personal tastes and preferences, (2) their income level, (3) the prices of complementary and substitute goods and (4) their view of the future.

For example, I may demand more chocolate at all alternative prices than Jan does because I like it very much. I may demand less of the chocolate at all alternative prices than Alice because my income level is lower. I may demand less chocolate next week because the price of vanilla candy (a substitute) is low enough for me to switch to vanilla. I may demand more chocolate next week because I believe that chocolate prices will go up considerably next month.

When a demand schedule or market survey is taken, we refer to demand as the entire schedule (or resultant curve), not to one isolated spot on the curve. So long as nothing happens to change (1) my tastes and preferences, (2) my income level, (3) the prices of complements and substitutes, and/or (4) my view of the future, the only movement of demand is somewhere along that curve. Such movement is determined by price changes alone.

When something does happen to change my attitudes toward the product (in any of the four ways mentioned), we see a situation in which the entire schedule is changed. We have a new demand curve. Perhaps, for example, I used to buy fewer chocolates than my friends because I thought they caused pimples. If now I read a medical study which convinces me that chocolate doesn't cause pimples, I may be willing to buy more chocolates than before at all alternative prices. This is called an increase in demand. Demand can also decrease; that is, the entire curve can move to the left on the graph, indicating that I would be willing to buy fewer of the product than before at all alternative prices. This was the change in demand anticipated by the U.S. Government when it legislated that the Surgeon General's warning be put on all cigarette packages. Thus far, however, this decrease in demand for cigarettes has not occurred in the aggregate, though it may have occurred for certain individuals.

Once a potential Mini-Society businessperson has determined the demand curve for his or her product among classmates, s(he) is ready to deal with the "other side of the coin"—supply. Supply refers to the willingness of suppliers at some specified time period to sell differing quantities of their product at alternative prices. In a sense, it is the "opposite" of demand. The universal characteristic of supply is that suppliers tend to be willing to supply more of a good or service at higher prices and less at lower prices. But how does a supplier decide how many of his product he or she is willing to produce at each alternative price? How does s(he) decide whether or not to produce the product? He or she considers the *costs*.

In economic theory the consideration of various types of costs can be quite complex. For Mini-Society purchases, however, the potential businessperson should consider all the costs of production; that is, s(he) should determine how much it would cost to hire labor, rent space, buy raw materials, rent or buy "capital goods" used in the production of a good or services (e.g., a typewriter for a newspaper or a sewing machine for a purse company), and perhaps even how much interest would have to be paid on a business loan. In addition, s(he) should consider the cost to him or her personally (opportunity costs) to determine if s(he) would be "better off" in an alternative business or employment. (For more on opportunity cost, see "Should I Change My Job?") If the entrepreneur can cover these costs (including opportunity cost to provide a profit as payment for the risk taken), s(he) should produce that particular good or service.

Dilemma 7

Shortages—Shortages—Shortages or Who Gets The Piano Lessons? (The Rationing Function of Price and Economic Shortages)

I. Objectives

1. The student will be able to describe the rationing function of price.
2. The student will be able to list three economic ways of eliminating shortage (raising price, decreasing demand, increasing supply).

II. Activities

1. The teacher will ask the children to raise their hands to indicate how many piano lessons they would buy at 25 "quets" for 15 minutes. Then sequentially raise the price by 5-"quet" increments until no one is willing to pay the price. (Adapt this example to your own classroom.) In discussion, use this example to point out the universal law of demand—that as the price goes down, the quantity demanded goes up.

2. Have the teacher graph a supply and demand curve and explain the concept of equilibrium price. Have the children discuss what will occur at a price below the equilibrium price (shortages, unsatisfied demanders).

3. Discuss with the children what might happen to the demand for piano lessons if suddenly children were able to take harmonica, guitar, or drum lessons, or lessons on chimes, song flutes or autoharps. Illustrate graphically or numerically how this might decrease the demand for piano lessons.

4. Two of Phillip's star piano pupils decide to go into business for themselves. Show how this increases supply and hypothesize what this will do to price.

5. Have the teacher compare the gasoline shortage with Phillip's problem. Emphasize that in economics a shortage by definition indicates that at the price being charged, the quantity being demanded is greater than the quantity being supplied, and there are unsatisfied buyers.

6. Explain why Jerry, who was next in line for a piano lesson, was able to sell his place in line to Lindsey for 40 "quets."

III. Economic Clarification of Ideas and Principles

When the line of patrons becomes unwieldly, who does get the piano lessons? Similarly, when the teacher is in business as a consultant and has more customers than she/he can accommodate, who gets the advice? Are we back to the beginnings of Mini-Society, again facing a "scarcity situation"? Obviously, the piano lessons are a scarce resource as is the teacher's advice, but what we have also encountered is a *shortage*. In debriefing these situations, we are dealing with several related concepts including the *for whom* decision and the rationing function of price. *Shortages* result from legally imposed price ceilings and price ceilings which are self-imposed.

The *for whom* decision is one of the three major decisions which must be made in any economy. All societies must decide in some way *what* to produce, *how* to produce, and *for whom* to produce. In a market economy, the *for whom* decision is made on the basis of price.

In a pure market economy (one in which no modifications are made by government), people get into the *for whom* group (are able to purchase goods and services which have been produced) by having sold their productive resources to firms previously; that is, those who have the money with which to buy are those who sold their labor, rented their lands, loaned their money (or other capital goods) or used their management skills as factors of production in the "putting together" of some good or service being produced by a firm. These people receive income for the use of their land, labor, capital or management and so enter the marketplace with the money with which to purchase some combination of goods and services.

In a modified market system (most Mini-Societies are modified market systems), the government may change the composition of the *for whom* group to some extent. Tax money may be used to provide incomes for some who have not been able to sell their productive resources in that time period. Sometimes the government in a modified market will add to the incomes of people who have been able to sell their resources but are considered too "poor" to be able to live at an acceptable level on their own incomes. We see these types of changes in our own society in the forms of unemployment insurance payments, social security payments, welfare and food stamps as well as other similar payments.

People in the *for whom* group are then able to cast dollar votes in the marketplace (buy some of what they want). In a sense, price rations in two ways. Those who have price/productivity ratios most beneficial to firms are those whose productive resources are hired (see a discussion of price/productivity). Also price rations the goods and services available for sale. Not everyone can buy all of everything wanted. A person must decide what (and how much) to buy on the basis of the prices being charged for the alternatives available, taking into account the available resource—money.

Within the market, there is some demand (wants backed by the ability to pay) for the products being sold. The market price is that price at which the quantity of a good or service being sold is equal to the quantity people are willing to buy. When this market price is reached, those who are willing to buy at the price can buy and those who are not, do not. I may be willing to buy 500 mink coats this winter (to carpet my floors) if they are sold at $5 per coat. However, it is unlikely that I will be able to purchase these coats. The coats will be rationed by price (probably thousands of dollars per coat), and I am not willing or able to purchase my coats at this price.

The indication that market price (equilibrium) has been reached is that there are no unsatisfied buyers or sellers (everyone who is willing and able to purchase can purchase all he or she wants at that price, and sellers can sell all they are willing and able to supply at that price). In the case of people standing in line for Phil's piano lessons or for the teacher's advice, we can guess that equilibrium has not been reached. Because the price of the services has been set below the market price, the quantity demanded at that price exceeds the quantity supplied at that price. This is the economic definition of *shortage*. Herein lies the difference between scarcity and shortage. Scarcity is unlimited wants versus limited resources. Shortage refers to a specific situation where the price is not high enough to ration goods and services successfully.

Shortages in Mini-Society can be caused by the suppliers limiting their own prices or by the imposition of a price ceiling (a legal maximum price for the good or service). Sometimes the seller is unaware of the demand for his product or sometimes she or he is purposely keeping prices low to enable people to buy that service or good. Occasionally in Mini-Society, students pass price ceilings for certain goods and services in an attempt to insure that the "poor" can buy them.

In any case, when a shortage exists, the goods and services are rationed not only by price (for people must still pay) but an additional rationing mechanism must come into effect. Most often, this is first come, first served. People who got Phil's piano lessons at first were those far enough ahead in the line to be served that day. We experienced a similar situation during our own gas crisis—those who got into line and were served before the station ran out of gas were able to buy gas. In some cases, people who were willing to pay a "time price" and wait in line for long periods got the gas instead of those who might have been willing to pay more money for the gas but couldn't spend the time in line. Additional rationing devices allow for discrimination on a basis other than income. For example, rent control is an attempt to insure that low-income people can get living quarters at "reasonable" prices. This existed during World War II and still does in New York and other places. But when a shortage of apartments exists (when the rent controls place the price ceiling below market price), the landlord has many prospective tenants from whom to choose. He or she can limit the building to adults only—discriminating against those with children—or can rent only to friends or only to certain groups of people considered to be "good" tenants. This may indeed exclude many of the poor whom the controls were designed to help.

However, rationing on an additional basis than price is one solution to the shortage problem. For example, in Phil's case some students suggested that he could get rid of the long line at his piano studio by selling lessons only to his particular friends.

There are other resolutions to the problems caused by a shortage and these are designed to eliminate the shortage: (1) Demand can be decreased; that is, some method can be found to make people want less of the piano lessons at all prices, including the current price. For example, Phillip could have started to give "bad" piano lessons, making his product less desirable across the board. He could have advertised saying that they were bad lessons. Also, Laura could have decreased Phillip's demand by offering a *substitute* service, e.g., violin lessons, flute lessons, etc. (2) Increase the supply; that is, be willing to provide more lessons at all prices, including the current one. Phillip could, for example, train more piano teachers to give lessons. (3) The government could have stepped into the situation and subsidized the suppliers, making them willing to supply more of the product at the lower price. This is another means of increasing supply; however, it entails the spending of tax dollars for the subsidy. (4) The price of the product could be raised to the market price (equilibrium) where the quantity demanded was exactly equal to the quantity supplied. This is the solution used by both Phil and the teacher who charged too little for her advice.

Dilemma 10

Should I Hire My Buddy (Price/Productivity, and Comparative Advantage)

I. Objectives

1. The student will be able to explain that in hiring a resource one must consider its cost to the producer, thereby including both price and productivity.
2. The student will be able to explain why comparative advantage means specializing in the activity in which s(he) is relatively more efficient.

II. Activities

1. The learner should describe why another child, who is receiving a "low wage," may still be reducing the profit. (For instance, the child might not be too productive. The child may alienate the customers. The child might destroy the product. The child might produce defective merchandise.)

2. Have the children compute the following example: Dan can produce 80 pieces of thumb-print chicken stationery per week for a salary of 20 BC's. David can produce 60 pieces of thumb-print stationery for 10 BC's per week. Carol can produce 100 pieces of thumb-print chicken stationery at 30 BC's. Which one would you hire and why? (*Note:* you should hire David at 10 BC's for 60 pieces of stationery, because you get more for your money.)

3. Have the children compute the following example: Terry owns a cleaning service and business is expanding so rapidly that he puts an ad in the class newspaper to hire a helper. Two children apply for the jobs. Stephen will work for 15 BC's per day and can clean 15 desks during that time. Arnold will work for 10 BC's per day and can clean 5 desks during that time. Whom should Terry hire? (*Note:* Terry should hire Stephen because it is costing him 1 BC per desk and if he hired Arnold it would cost him 2 BC's per desk.)

4. Lulu and Stanley are in a contractual partnership making posters. Besides being the class's best speller, Lulu can form beautiful letters and fill them in perfectly. Stanley can outline the letters and fill in the colors adequately, although he is not a very good speller. Explain why it might be wise to have Stanley fill in the colors while Lulu does the lettering, even though Lulu is better at both. (The teacher might want to label this phenomenon as Comparative Advantage.)

5. Have the children role-play Activities 2 and 3. In Activity 2 the employer's best buddy is Carol. In Activity 3, the employer's best buddy is Arnold. Carol is an excellent hair stylist and loves to comb hair. Arnold is a good carpenter and enjoys wood carving. Have each employer explain to his/her friend why both of them might be better off, both from a business and friendship point of view, if they did not work together.

II. Economic Clarification of Ideas and Principles

With amazing regularity, students in Mini-Societies are faced with friendship versus business judgments. An understanding of price versus productivity and comparative advantage can often help both children involved in such a dilemma.

Price versus productivity is truly a ratio and can be understood through an explanation of the arithmetic processes involved. If one worker will work for $10 per hour and another will work for $5 per hour, which, rationally, should be hired? The answer is not clear since there is not enough information. We do not as yet know how much we get for each dollar spent on the alternative workers (resources). If we are told that the $5-per-hour worker can produce 50 cookies in an hour and the $10-per-hour worker can produce 75 cookies in an hour, the situation is clearer. Dividing price by productivity, we see that the $5 per hour worker can produce cookies at the cost (for labor) of $.10 per cookie while it costs us $.13 per cookie for the labor if we have the $10 per hour worker. But what if the $5 per hour worker can produce 50 cookies per hour while the $10 per hour worker can produce 150? The situation is now reversed. (It will cost either $.10 per cookie or $.07 per cookie for labor depending on which one we hire.)

Comparative advantage can become a complex issue in economics. It is most often spoken of in relation to international trade situations. But how does it apply to Mini-Society? First, in the least complicated way, the concept of "advantage" applies and is related to specialization. We all want to work at that which we can do well, and at that which we like to do. On the issue of whether I should hire my buddy, the question is dual-faceted. Another question which should be asked is whether or not your buddy should work for you. Perhaps you run a bank and are thinking of hiring your buddy as an accountant. Your buddy is ok in arithmetic but isn't the greatest and besides, he is a wonderful artist and would rather paint than add any day. In this case he would probably be better off (as would you) if he pursued his artistic talents through some other job or a business of his own. Not only would he probably be happier doing what he likes, but he would also probably be better at it and receive more recognition (pecuniary and nonpecuniary).

But what of the situation of the child who is "best" or "very good" at a number of things? How does comparative advantage apply here? Let us take the example of Shari and Jennifer. Both girls can produce picture books. Both can also produce paper dolls for sale. Shari is better (more productive) than Jennifer at both of these. We say she has *absolute advantage*. But what about Jennifer? Should she simply look for still another alternative good to produce since she can't compete with Shari (for efficiency) in either of these? Let's look at the "balance sheet."

It takes Shari 10 minutes to make a paper doll and it takes Jennifer 19 minutes to make a similar one. It takes Shari 15 minutes to put together the parts for a picture and Jennifer takes 16 minutes to do the same.

Shari		Jennifer
15 min.	picture book	16 min.
10 min.	paper doll	19 min.
25 min.		35 min.

If both girls produce both picture books and paper dolls, Jennifer is spending 35 minutes to make one of each item and Shari is spending 25 minutes to do the same. Is there anyway in which the girls can be beneficial to each other (and to their Mini-Society) by becoming more productive?

Assume that they specialize, with Shari making paper dolls and Jennifer making picture books. What will happen now?

Shari	Jennifer
20 min.	32 min.
(was 25) to make	(was 35) to make
2 paperdolls	2 picture books

Jennifer has what is called a *comparative advantage* in picture book production. Who knows? They may even join forces in a company selling paper products in their Mini-Society since each saves time by specializing according to her comparative advantage.

Thus, "Should I Hire My Buddy," often becomes the question of whether from a price/productivity point of view it is wise to hire your buddy, and from your buddy's point of view, is she/he working at something in which he/she has a comparative advantage?

Suggested Supplementary Materials for the Master Curriculum Guide, Strategies for Teaching Economies:

Intermediate Levels

(Grades 4-6)

Prepared by Barbara Schick, Director for Economic Education, University of Nevada, Las Vegas

These materials have been selected to help teachers to introduce and/or reinforce economic concepts and to provide teachers with opportunities to integrate economics with other disciplines. Therefore, as indicated in the annotation, some of the materials do not contain explicitly stated economic concepts, but have implicit economic content which teachers can utilize. Advanced materials are appropriate for use at the sixth-grade level or with students who have had economics at lower grade levels.

Films

BAKERY BEAT
Color, 15 minutes
Aims
626 Justin Ave.
Glendale, CA 91201

Shows the operation of a bakery and the many jobs that are performed. A good film to view prior to a field trip to a bakery.

BEHIND THE SCENES AT THE SUPERMARKET
Color, 11 minutes
BFA Educational Media
2311 Michigan Ave.
Santa Monica, CA 90404

This film illustrates how a supermarket is run. It can be used prior to a field trip to a supermarket or with the film above to show children what happens to bread after it leaves the bakery.

CALIFORNIA AND GOLD, 2nd ed.
Color, 15 minutes
Paramount Oxford Films
1136 North Las Palmas Ave.
Hollywood, CA 90038

Covers the history of California from the discovery of gold to the first transcontinental railroad.

CALIFORNIA AND ITS NATURAL RESOURCES
Color, 31 minutes
Richfield Oil Company
Post Office Box 75007
Stanford Station
Los Angeles, CA 90005

Presents the resources, products and industries of California, contrasting the present development with the barrenness and wasteland of early days. Emphasis is given to petroleum and natural gas resources.

CHILDREN OF THE WAGON TRAIN
Color or black and white, 18 minutes
McGraw-Hill Textfilms
1221 Avenue of the Americas
New York, NY 10020

Describes the route of the Oregon trail and explains some of the motivation behind the westward movement. Recreates life with a wagon train. From the Children of Pioneer Times Series.

COMPARING TWO NATIONS
Color, 10 minutes
BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90404

A nation with a one-crop economy is compared to an industrialized nation with an economy which produces a wide variety of goods and services. This film explains the factors of production and illustrates how their quality and quantity and the way in which they are utilized affect a country's standard of living. Specialization and trade are also covered.

CONSERVING OUR NATURAL RESOURCES

Color, 18 minutes

BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90404

Explains that science has found ways to obtain the most from resources and to use new materials. This film also points out that waste and pollution of resources have not been eliminated and stresses the need for conservation.

CONSERVATION FOR BEGINNERS

Color or black and white, 11 minutes

Coronet Instructional Films
65 East South Water St.
Chicago, IL 60611

Introduces the importance of the soil, plants, wildlife and water. It emphasizes the conservation of natural resources.

A DAY IN THE LIFE OF A TWO DOLLAR BILL

Color, 10 minutes

Paramount Oxford Films
1138 North Las Palmas Ave.
Hollywood, CA 90038

This film illustrates the uses and velocity of money by following a two-dollar bill received by two children for washing a car through a purchase, a loan, check-cashing and bank to the two children who earned it by washing windows.

DIVISION OF LABOR

Color, 10 minutes

Paramount Oxford Films
1138 North Las Palmas Ave.
Hollywood, CA 90038

Two children make birthday presents for a friend. This is compared with toy-making in a factory, illustrating how division of labor and the use of capital equipment increase productivity.

ECONOMICS—IT'S ELEMENTARY

Color, 11 minutes

Aims
626 Justin Ave.
Glendale, Ca 91201

A family spends the summer vacation in a remote cabin without modern conveniences. Their efforts to satisfy their wants illustrate many basic economic concepts including consumer goods and services; specialization and the exchange of surplus; interdependence; money as a medium of exchange and a store of value; and freedom of choice in work.

ECONOMICS: NEWSPAPER BOY

Color, 11 minutes

BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90404

A newspaper boy is portrayed as a businessman who sells a product, provides a service and makes a profit. The film introduces some basic concepts and illustrates the importance of positive attitudes toward work.

HAD YOU LIVED THEN

Color, 15 minutes

ACI Productions
35 West 45th St.
New York, NY 10036

This portrayal of life on American farms and towns in 1800 provides teachers with an opportunity to integrate economics with history and geography.

IT'S ALL MINE

Color, 10 minutes

Modern Talking Pictures
2323 New Hyde Park Road
New Hyde Park, NY 11040

Presents an animated cartoon designed to enlighten children on the use and value of money, the importance of saving, and the basic functions of a bank.

LAND, LABOR, CAPITAL

Color, 10 minutes

Paramount Oxford Films
1138 North Las Palmas Ave.
Hollywood, CA 90038

Each of three individuals explains why land, labor, or capital is the most important resource in the economy. An excellent vehicle for provoking discussion since it is left to the viewers to decide which, if any, is the most important. Part of Economics for Elementary Series.

THE LEMONADE STAND: WHAT'S FAIR?

Color, 14 minutes

Encyclopedia Britannica
Educational Corporation
425 North Michigan Avenue
Chicago, IL 60611

Two boys set up a lemonade stand to earn money. One of them decides to play baseball while the other continues to work at selling lemonade. A controversy develops over who should get the profits. This film's open-ended format provides students with an opportunity to discuss obligation and responsibility and the concept of opportunity cost.

MEANING OF CONSERVATION

Color or black and white, 11 minutes

Coronet Instructional Films
65 East South Water St.
Chicago, IL 60611

Shows what is being done to maintain our country's resources and natural beauty by limiting hunting and fishing, building dams to control floods, planting trees and developing new farming methods.

MONEY: HOW ITS VALUE CHANGES

Color, 13 minutes

Coronet Instructional Films
65 East South Water St.
Chicago, IL 60611

This film explains the effects of changes in the value of a dollar and how these changes occur. Concepts explicitly introduced and described include money as a medium of exchange; the money supply; credit; inflation; recession and depression; and supply and demand. The rudiments of monetary and fiscal policy are introduced. Advanced.

MONEY IN THE BANK—AND OUT

Color or black and white, 15 minutes

Churchill Films
662 North Robertson Blvd.
Los Angeles, CA 90069

Emphasizes how a bank helps the community by keeping money in circulation. Explains such procedures and terminology as deposits, checks, interest and money flow.

MRS. PEABODY'S BEACH

Color, 24 minutes

Walt Disney Educational Media Company
800 Sonora Ave.
Glendale, CA 91201

A humorously told story about a teenage surfer and an aging lady entrepreneur who owns an ideal beach for surfing. Mrs. Peabody, the entrepreneur, will allow surfing only if the teenager helps her to develop the beach as a profitable business. The teenager—and viewers—are introduced to a host of economic concepts and their application to starting and running a successful business. These concepts include scarcity; private property; goods and services; the laws of supply and demand; the factors of production: land, labor, capital and entrepreneurship; profit and its functions; the law of diminishing returns; and many others. Advanced.

THE OREGON TRAIL

Black and white, 25 minutes

Encyclopedia Britannica Educational Corporation
425 North Michigan Ave.
Chicago, Illinois 60611

This film recreates the saga of the westward movement and dramatizes the experiences of a pioneer family migrating to Oregon in a wagon train. It shows how they are involved not only in the forces of history but also with their own human family problems.

PEANUTS AND THE PEANUT BUTTER PLANT

Color, 10 minutes

Centron Educational Films
1621 West 9th St.
Lawrence, Kansas 66044

A film about a highly automated industry. It covers the growth of the peanut plant, nutritional information on peanuts, where the different varieties are grown, and the use of capital equipment in growing, harvesting, grading and processing peanuts. This film can be used to integrate economics with geography and science.

PROFIT: YOU GOTTA BE OUT OF YOUR COTTON PICKING MIND!

Color, 9 minutes

Stephen Bosustow Production
1649 11th St.
Santa Monica, CA 90404

The concept of profit and its functions are entertainingly depicted in an imaginative version of the story of Eli Whitney and his cotton gin. Profit is explained in terms that are somewhat different from the usual economics treatment. Students can compare this definition with their textbook definition.

RESOURCES

Color, 9 minutes

Paramount Oxford Films
1138 North Las Palmas Ave.
Hollywood, CA 90038

The natural resources, food, minerals, lumber, water, land and air, and their alternative uses are explained and discussed. While the term "opportunity cost" is not used, emphasis is placed on choice-making—choosing the best ways to use resources in order to protect the environment and/or to provide for society's wants. The film poses questions for students to discuss and answer. Part of Economics for Elementary Series.

RICE

Color or black and white, 26 minutes

McGraw-Hill Textfilms
1221 Avenue of the Americas
New York, NY 10020

This film stresses the worldwide importance of rice and the methods of growing it. Also included are measures taken to improve the quantity and quality of the commodity.

SCROOGE McDUCK AND MONEY

Color, 15 minutes

Walt Disney Educational Media Corporation
800 Sonora Ave.
Glendale, CA 91201

This is a highly entertaining film with solid economic content. Uncle Scrooge McDuck shows his three little nephews that economics affects everyone. The film provides a brief history of the evolution of money from barter to early and modern forms of money as a medium of exchange; the importance of saving and prudent investment; an explanation of inflation, deflation, flow of money, individual and government budgeting and spending; and an excellent basic economics vocabulary.

THE STORY OF OUR MONEY SYSTEM

Color or black and white, 11 minutes

Coronet Instructional Films
65 East South Water St.
Chicago, IL 60601

Traces the evolution of our unified money system from bartering to convenient forms used today. This film includes interesting material on monies used in the American colonies. Two functions of money, as a medium of exchange and as a standard of value, are explained.

TRADE

Color, 10 minutes

Paramount Oxford Films
1138 North Las Palmas Ave.
Hollywood, CA 90038

Natural resources, labor, capital and profit, are introduced and explained by illustrating the processes necessary to bring tomatoes from the farm to the middleman, from the middleman to the supermarket and the consumer. Part of Economics for Elementary Series.

WHAT IS AUTOMATION

Color or black and white, 14 minutes

BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90404

This film shows an automated factory and explains how an increased amount of automation results in a greater ability to produce goods in less time, allowing more time for leisure.

WHY WE HAVE SPECIAL JOBS: THE MAN WHO MADE SPINNING TOPS

Color, 7 minutes

Learning Corporation of America
1350 Avenue of the Americas
New York, NY 10019

A delightful, and often humorous, animated film describes the concept of specialization. Each of the inhabitants of a small village provides for all of his wants until one day a man makes a spinning top for his son. All the other fathers wanted him to make spinning tops for their children. How this man began to specialize in making tops and others began to specialize in what they did best is illustrated.

WHY WE HAVE TAXES: THE TOWN THAT HAD NO POLICEMAN

Color, 10 minutes

Learning Corporation of America
1350 Avenue of the Americas
New York, NY 10019

A thief enters the village depicted in "Why We Have Special Jobs." The inhabitants decide that each will contribute a portion of his income to pay a policeman and the idea of taxes is born.

WHY WE USE MONEY: THE FISHERMAN WHO NEEDED A KNIFE

Color, 10 minutes

Learning Corporation of America
1350 Avenue of the Americas
New York, NY 10019

An animated film using the same setting as the above-listed films humorously illustrates the inconveniences of barter and how the use of money came about.

WILD RIVER

Color, 14 minutes

Encyclopedia Britannica Educational Corporation
425 North Michigan Ave.
Chicago, IL 60611

The value of rivers for recreation, as havens for wildlife and as a water supply for towns is explained. The film also shows how water resources may be polluted by refuse, oil and chemicals and stresses the need for conservation.

Filmstrips

BASIC CONCEPTS IN ECONOMICS SERIES

Six filmstrips with cassettes

BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90406

1. Producers and Consumers: Why Do People Work?
2. Factors of Production: What Do We Need to Get Work Done?
3. Specialization: How Do We Organize to Get Things Done?
4. Economic Interdependence: Can We Live by Ourselves?
5. Saving and Lending: What Do Banks Do with Our Money?
6. Our Market Economy: Who Tells People What to Do?

This series introduces economic terms and helps students to understand basic concepts. The lessons familiarize viewers with the roles of consumers and producers, identify the factors of production (the entrepreneur is omitted), recognize the advantages and disadvantages of specialization, describe ways in which people are interdependent, and relate how economic factors affect their daily lives.

This material can be used to introduce economics at the intermediate level or as review for students who have had economics in the primary grades. The series has a good teacher's guide.

ECONOMICS IN OUR ECONOMY

Eight full color filmstrips with printed captions

Educational Enrichment Materials
110 South Bedford Road
Mt. Kisco, NY 10549

1. Specializing & Exchanging
2. We Are All Consumers
3. Working & Earning
4. Economic Systems
5. Money & Exchange
6. Labor Unions
7. International Trade
8. Government Goods & Services

This series explains basic economic concepts and helps students to understand why people and countries specialize, how and why goods and services are exchanged, and why governments as well as individuals must budget. "Read-aloud" captions for each frame permit teachers to control the speed of each program by stopping whenever student questions and discussion warrant. The program includes a summary wall chart that reviews the economic terms explained in the filmstrips. Economic vocabulary is strengthened by using a set of 36 flash cards covering key economic ideas such as income, division of labor, tariff, and specialization. A 24-page teacher's guide suggests classroom activities, background information, discussion questions, and ideas for research topics.

THE ECONOMY: HOW IT WORKS

Four filmstrips with cassettes
Color

Changing Times Education Service
1729 H St.
Washington, DC 20006

1. Our Economic System: Freedom of Choice
2. The Government: Helping Us Meet Our Goal
3. Money: Keeping the Economy Moving
4. People and Machines

The first filmstrip in this series provides a good overview of the functioning of a market system and introduces scarcity, consumers and producers, the factors of production, profit and the profit motive, and supply and demand. Choice-making at the personal, community and national level is explained. In the second, the role of government is explained by examining the functions of government agencies in assisting and/or protecting consumers, producers and the unemployed, and relationships between taxes and fiscal policy, money and monetary policy. The use of money as a medium of exchange and a standard of value versus barter is illustrated in the third. Checks and credit cards are also explained. The fourth describes how productivity has increased as technological advances, specialization and division of labor have been utilized in the production process. Advanced.

MARKET ECONOMY

Six filmstrips with cassettes

BFA Educational Media
2211 Michigan Ave.
Santa Monica, CA 90406

1. Introduction
2. Subsistence Farmers
3. Craftsman
4. Specialized Farmer and Specialized Vendor
5. Traveling Vendor
6. Store Owner

This series deals with the relationship between producers and consumers and between environment and product in a developing country's market economy. The first filmstrip introduces the kinds of markets and the participants which are more fully described in the other five. With the exception of the first in the series, each filmstrip opens with a list of questions to help students to concentrate on the important aspects of the material. The teacher's guide contains debriefing questions and extension activities. This series can be used with children who have not had economics in primary grades.

CHECKING OUT CHECKS

Filmstrip with cassette

Federal Reserve Bank of New York
Public Information Department
33 Liberty St.
New York, NY 10045

All there is to know about checks and how they function in our banking system. This filmstrip is accompanied by a comic book, "The Story of Checks," and a teacher's guide with duplicating masters for use in suggested activities. Excellent material for personal finance or banking units.

URBAN WORLD—VALUES IN CONFLICT

Eight filmstrips with cassettes or records

Coronet Instructional Films
65 East South Water St.
Chicago, IL 60601

1. Megalopolis or Monster?
2. The Transportation Dilemma
3. The Pollution Dilemma
4. The Housing Dilemma
5. The Crime Dilemma
6. The Poverty Dilemma
7. The Money Dilemma
8. The Planning Dilemma

Each filmstrip presents an open-ended case study of a community problem and its impact on urban areas. The emphasis is on values in conflict which stand in the way of solving these problems. For example, "The Money Dilemma" presents a case study of conflict over whether to build a playground or a shopping center on a vacant piece of land to illustrate money problems of most cities. The focus is on the need for rational decision-making and citizen participation. The content of this material offers a vehicle through which values are explored, and by which the student engages in the process of arriving at his or her own decision for the resolution of the conflict. A teacher's Guide indicates classroom strategies. Advanced.

Books

Adler, Irving, and Ruth Adler, *Tree Products*. New York: The John Day Company, 1966.

This book tells the story of trees, what they are, how they grow, their uses throughout history, and describes the many products we get from this important natural resource. Scientific terms have phonetic spelling in parentheses to help the young reader to pronounce words such as phloem, xylem and cambium. Good research material for a study of a natural resource and the products it provides.

Fisher, Leonard E., *The Peddlers*. New York: Franklin Watts, Inc., 1968.

The story of the Yankee peddlers and their role in the economy of the Colonial period illustrates the scarcity of goods and services, the shortage of currency and how barter was often used during this stage of our history.

Golann, Cecil P., *The Taming of Israel's Negev*. New York: Julian Messner, 1970.

A fascinating account of the Negev Desert and its development. It focuses on the different cultures, country life in the Kibbutz and the Moshav—examples of two different economic systems functioning side by side—and city life with its growing commerce and industry.

Lewellen, John B., *You and Transportation*. Chicago: Childrens Press, 1965.

A dramatic and often humorous story of the growth of cargo transportation and the pioneers and inventors who contributed to it. Illustrates how improved transportation increased economic activity and our standard of living.

Merrill, Jean, *The Toothpaste Millionaire*. Boston: Houghton Mifflin Company, 1972.

Twelve-year-old Rufus Mayflower set out to prove how cheaply toothpaste could be made. Rufus winds up in the toothpaste business and makes a million. The story realistically follows his rising success and illustrates how to establish a corporation, sell stock, get a bank loan and use a little ingenuity in advertising to outwit the competition.

Ritchie, Barbara, *Ramon Makes a Trade*. Berkeley: Parnassus Press, 1959.

A story of a young Mexican boy who wants to trade a piece of his family's pottery, which they have brought to market to sell, for a green parrot in a cage. This delightful tale, written in Spanish and English, illustrates the inconveniences of barter.

Robertson, Keith, *Henry Reed's Baby-Sitting Service*. New York: The Viking Press, 1966.

Henry wants to earn some money during his summer vacation. At Uncle Al's suggestion, Henry uses a questionnaire to find out what kind of service is in demand in Grover's Corners. Although disappointed to learn that his best bet is baby-sitting, Henry sets up a company and by providing a better service than his competitors, succeeds. Henry and his partner, Midge, run into a number of humorous difficulties which they handle with aplomb. The story illustrates the importance of taking responsibility and having a positive attitude toward one's job.

Seldin, Joel, *Automation*. New York: Coward-McCann, Inc., 1965.

A number of economic concepts are covered in this book about automation. It emphasizes the need for education if students are to find jobs in the new world of computers and advancing technology. Included is the debate over whether automation provides or eliminates more jobs. Advanced.